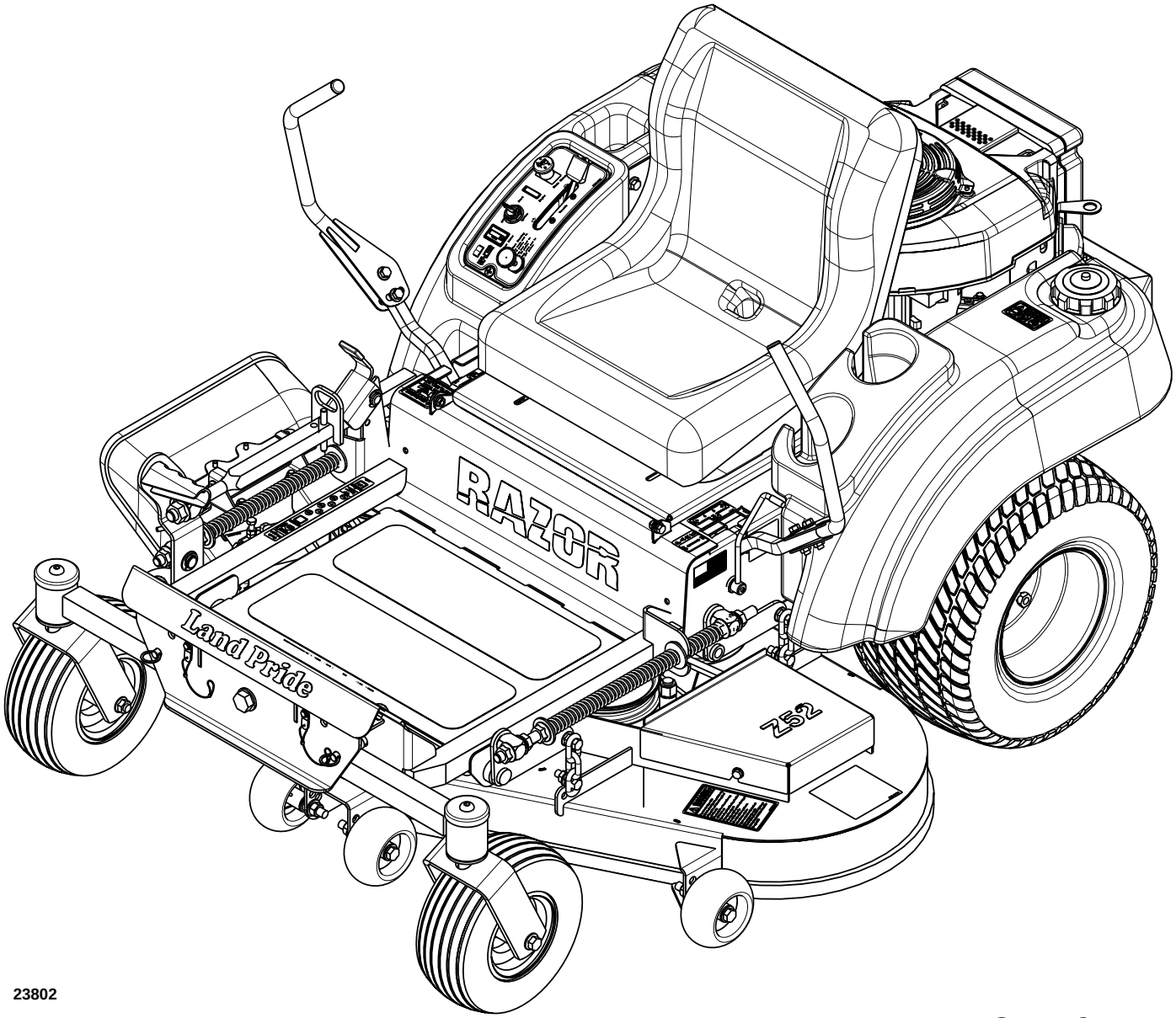
Table of Contents

Zero Turn Mowers

Z44 & Z52 (S/N 472620 -526170)

Accu-Z Razor®



23802

357-044M
Operator's Manual

Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

© Copyright 2010 *Printed* **4/19/10**

Cover photo may show optional equipment not supplied with standard unit.

Important Safety Information 1
Safety at All Times 1
Safety Labels 4
Introduction 7
Application 7
Using This Manual 7
Owner Assistance 7
Section 1: Assembly & Set-up 8
Uncrating Instructions 8
Control Lever Assembly 8
Seat Assembly 8
Hitch Plate Assembly 8
Electrical Cable Connection 9
Engine Preparations 9
Remove Mower From Crate Floor 9
Section 2: Operating Procedures 10
Mower Features 10
Operating Check List 11
Instrumentation 11
Engine Oil Pressure Light 11
Hour Meter 11
Controls 11
Ignition Switch 11
Throttle 11
Choke 11
Blade Engagement Switch 12
Left/Right Fuel Tank Valve 12
Control Levers 12
Park Lever 12
Deck Lift Pedal 13
Safety Start Interlock System 13
Engine Starting 13
Driving the Mower 14
To Start and Increase Speed 14
To Decrease Speed or Stop 14
Steering 14
Moving Mower with Stalled Engine 15
Safe Operating Instructions 16
Mower Deck Operation 18
General Operating Information 18
Section 3: Adjustments 19
Torque Values 19
Steering Linkage 19
Control Lever Neutral Adjustment 20
Steering Dampener 20
Seat Adjustment 21
Upper Control Lever Adjustments 21
Hydro-Drive Belt Adjustment 22
Deck Drive Belt Adjustment 22
Engine RPM Setting 22
Deck Leveling & Height Adjustment 22
Deck Level Adjustments 22
Deck Cutting Height Adjustment 25
Anti-Scalp Rollers 25
Pivot Front Wheels 25
Section 4: Maintenance & Lubrication . .26
Maintenance Locations 26
Maintenance Schedule 27
Maintenance 28
Torque Values 28
Tires 29
Electrical System 29
Access to IZT Units 30
Hydraulic System 30
Hydraulic oil and Filter 30
Fuel System 31
Fuel Filter 32
Draining The Fuel Tank 32
Engine Oil and Oil Filter 32
Oil Check, Honda Engine 32
Oil Check, Briggs & Stratton Engine 32
Engine Air Filter 33
General Engine Maintenance 33
Belt Replacement 33
Deck Belt Replacement Instructions 33
Drive Belt Replacement Instructions 34
Mower Blade Maintenance 34
Storage 36
Preparation of Engine for Storage 36
New Season Preparation 36
Lubrication Points 37
Center Blade Spindle 37
Left Blade Spindle 37
Right Blade Spindle 37
Gauge Wheel Bearing Zerk 38
Front Axle Center Pivot 38
Deck Lift Pivot Points 38
Section 5: Specifications & Capacities . .39
Section 6: Features and Benefits 41
Section 7: Troubleshooting 42
Section 8: Appendix 44
Torque Values Chart 44
Tire Inflation Chart 44
Warranty 45

© Copyright 2010 All rights Reserved

Land Pride provides this publication "as is" without warranty of any kind, either expressed or implied. While every precaution has been taken in the preparation of this manual, Land Pride assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Land Pride reserves the right to revise and improve its products as it sees fit. This publication describes the state of this product at the time of its publication, and may not reflect the product in the future.

Land Pride is a registered trademark.

All other brands and product names are trademarks or registered trademarks of their respective holders.

Printed in the United States of America.

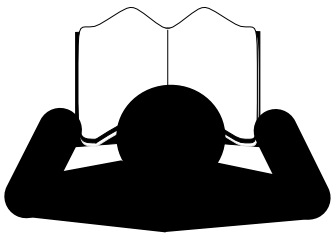
These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ Operator should be familiar with all functions of the unit.
- ▲ Operate implement from the driver's seat only.
- ▲ Do not leave equipment unattended with engine running.
- ▲ Dismounting from a moving mower could cause serious injury or death.
- ▲ Do not stand between the mower and implement during hitching.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Wear snug fitting clothing to avoid entanglement with moving parts.
- ▲ Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- ▲ Turning mower too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.



Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

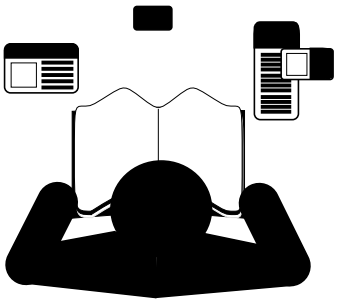
DANGER
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

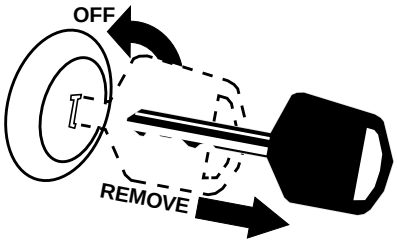
For Your Protection

- ▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Shutdown and Storage

- ▲ Lower machine to ground, put mower in park, turn off engine, and remove the key.
- ▲ Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.



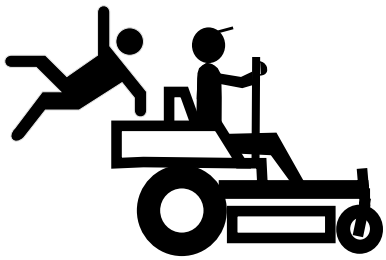
These are common practices that may or may not be applicable to the products described in this manual.

Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Put mower in park, turn off engine, and remove key before performing maintenance.
- ▲ Allow mower to cool completely before performing maintenance..
- ▲ Do not grease or oil mower while in operation.
- ▲ Inspect all parts. Make sure parts are in good condition and installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused parts from mower before operation.

Keep Riders Off Machinery

- ▲ Riders obstruct the operator's view, they could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children under 16 years of age to operate equipment.



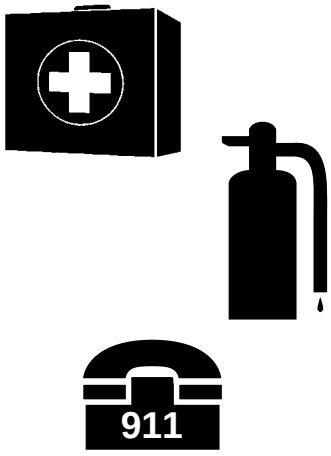
Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.



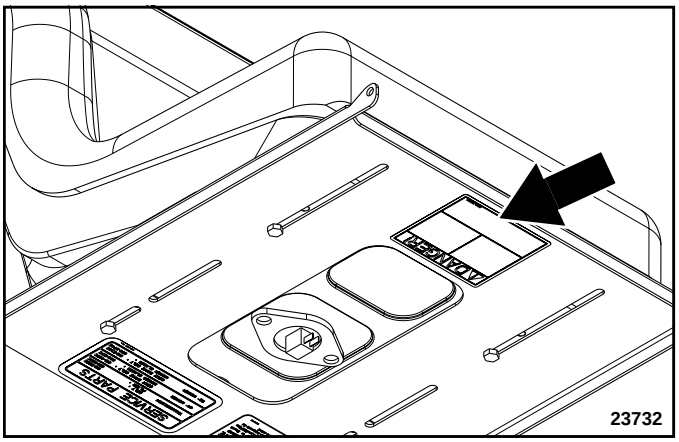
Wear Protective Equipment

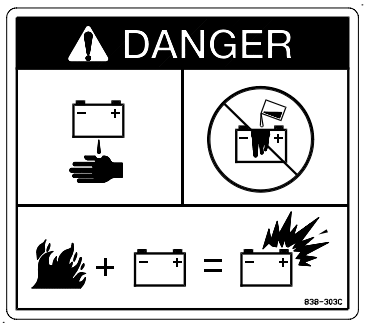
- ▲ Protective clothing and equipment should be worn.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.

Safety Labels

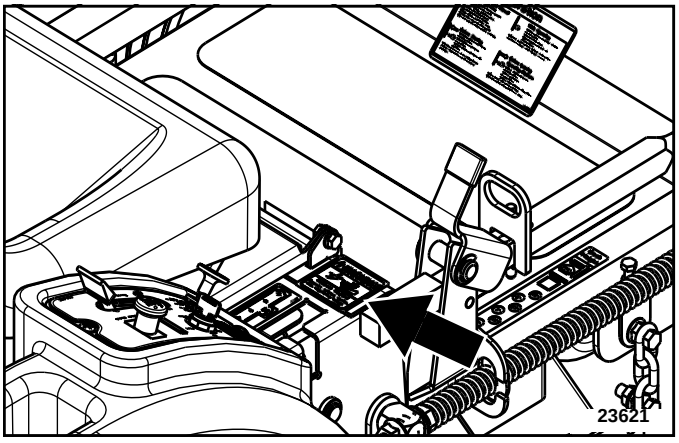
Your mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. *Keep all safety labels clean and legible.*
2. *Replace all damaged or missing labels. To order new labels go to your nearest Land Pride dealer.*
3. *Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.*
4. *Refer to this section for proper label placement. To install new labels:*
   a. *Clean the area the label is to be placed.*
   b. *Spray soapy water on the surface where the label is to be placed.*
   c. *Peel backing from label. Press firmly onto the surface.*
   d. *Squeeze out air bubbles with the edge of a credit card.*

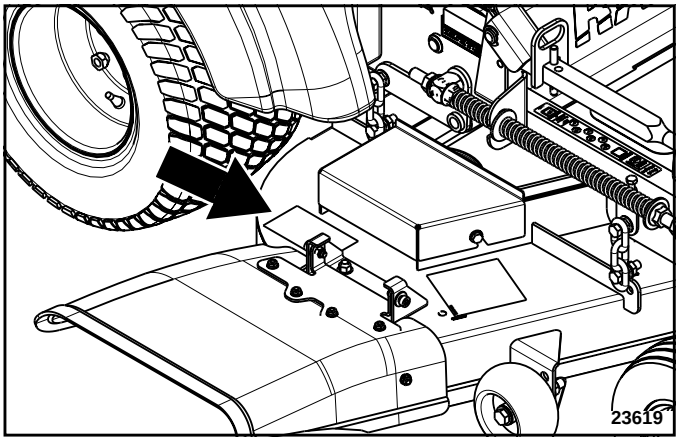


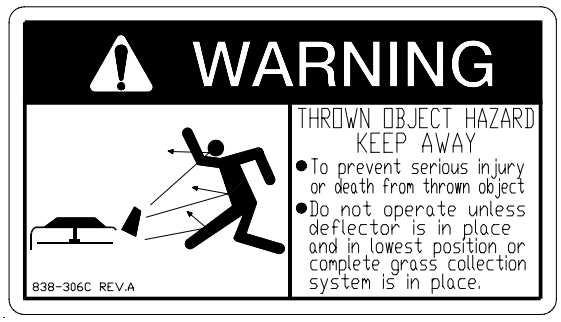


838-303C
Danger: Battery
(In Engine Compartment Beneath The Seat Mount)

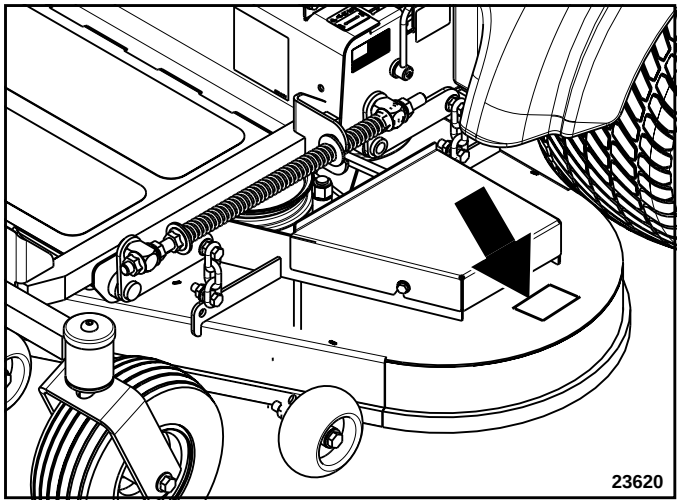


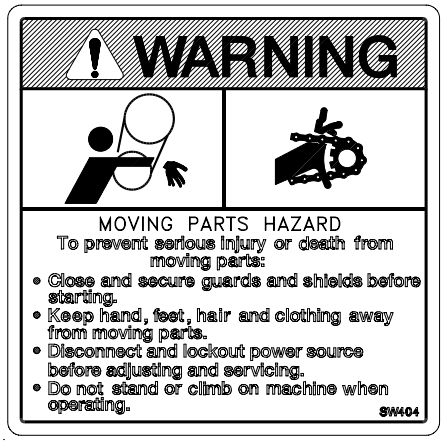
838-815C
Warning: Rollover Hazard




WARNING
THROWN OBJECT HAZARD
KEEP AWAY
To prevent serious injury or death from thrown object
Do not operate unless deflector is in place and in lowest position or complete grass collection system is in place.
838-306C REV.A

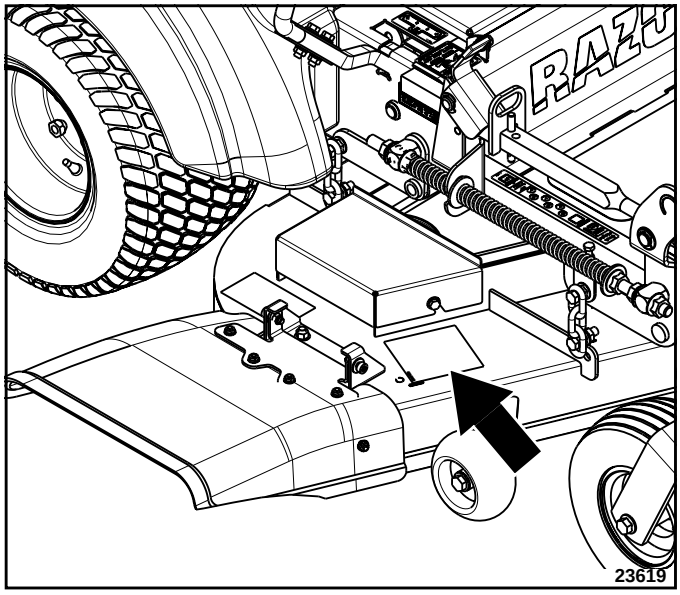
838-306C
Warning: Do not operator without deflector




WARNING
MOVING PARTS HAZARD
To prevent serious injury or death from moving parts:
• Close and secure guards and shields before starting.
• Keep hand, feet, hair and clothing away from moving parts.
• Disconnect and lockout power source before adjusting and servicing.
• Do not stand or climb on machine when operating.
SW404

838-307C

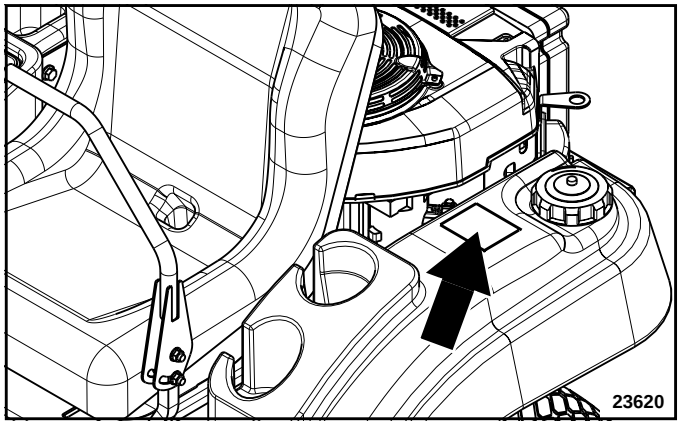
Warning: Moving Parts

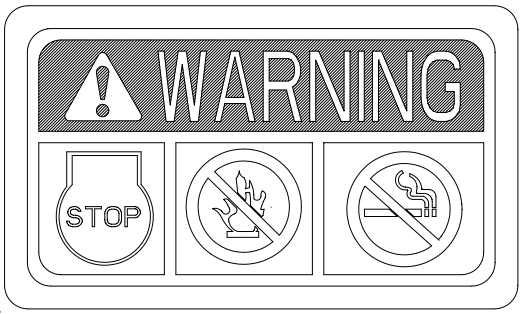


WARNING
ROTATING BLADE HAZARD
• Keep Away - Rotating Blades
• To prevent serious injury or death from thrown object:
• Do not operate with deflectors removed.
• Do not point discharge toward people, animals or buildings when operating.
• Do not place hands or feet under deck when operating or when engine is running.
SW800

838-308C

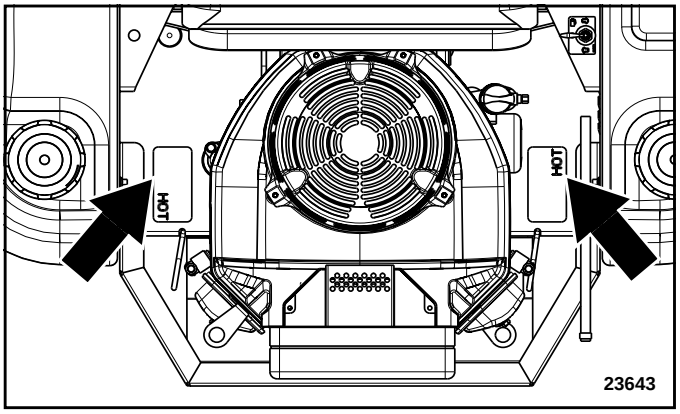
Warning: Rotating Blade Hazard



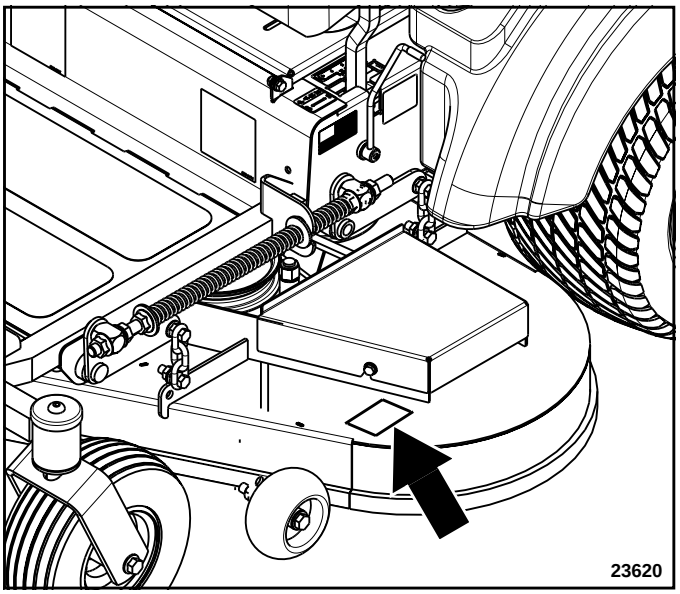


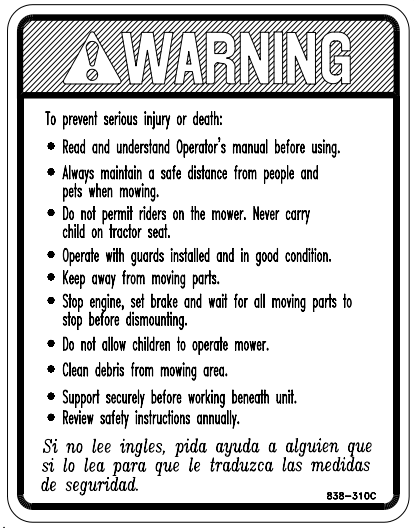
838-833C

Warning: Fuel (Imbedded in Fuel Tank)

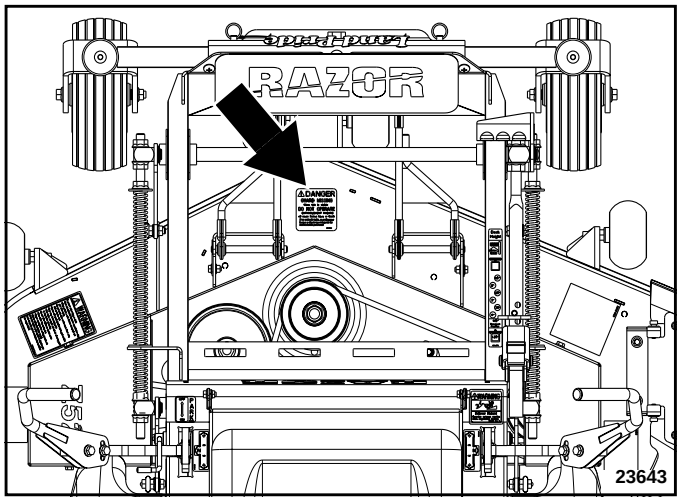


838-444C
Danger: Muffler Hot
(Both Sides of Engine)




WARNING
To prevent serious injury or death:
• Read and understand Operator's manual before using.
• Always maintain a safe distance from people and pets when mowing.
• Do not permit riders on the mower. Never carry child on tractor seat.
• Operate with guards installed and in good condition.
• Keep away from moving parts.
• Stop engine, set brake and wait for all moving parts to stop before dismounting.
• Do not allow children to operate mower.
• Clean debris from mowing area.
• Support securely before working beneath unit.
• Review safety instructions annually.
Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.
838-310C

838-310C
Warning: General



DANGER
GUARD MISSING
When this is visible
DO NOT OPERATE
ENTANGLEMENT HAZARD
can cause Serious Injury or Death
Si no entiende ingles, se prefiere que busque a alguien que interprete las instrucciones para usted.
PHDC 6

818-543C
Danger: Guard Missing

Land Pride welcomes you to the growing family of new product owners.

This mower has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operating practices will help you get years of satisfactory use from the machine.

Application

The Accu-Z® Razor Mowers from Land Pride are compact in size and ideal for homeowner grass maintenance. The Razor is a true zero-turn mower: When mowing alongside a building or landscaping, the Razor allows you to turn away and not hit anything with the rear end. Also, the control lever heights are adjustable making the mower comfortable to handle. See "**Section 5: Specifications & Capacities**" on page 39 and "**Section 6: Features and Benefits**" on page 41 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com or printed from the Land Pride Service & Support Center by your dealer.

Terminology

"Right" or "Left" as used in this manual is determined by facing forward while sitting in the operator seat unless otherwise stated.

Definitions

NOTE: A special point of information that the operator must be aware of before continuing.

IMPORTANT: A special point of information related to its preceding topic. Land Pride's intention is that this information should be read and noted before continuing.

Owner Assistance

The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the mower.

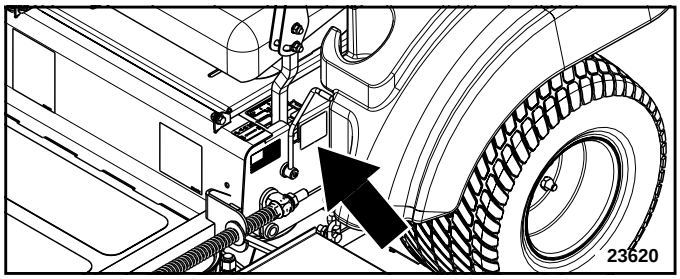
The parts on your mower have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your mower require replacement parts go to your Land Pride Dealer.

For parts and service to your mower engine, contact your nearest engine dealer or call Customer Service Hotline provided below.

Service Manual:	Honda 18 HP - P/N GXV610K1 Honda 20 HP - P/N GXV620K1 B&S 20 HP - 273521-5/99 B&S 25 HP - 273521-5/99
Owner's Manual:	Honda 18 HP - P/N 31ZJ4620 Honda 20 HP - P/N 31ZJ4620 B&S 20 HP - 276245-5/05 B&S 25 HP - 276245-5/05
Honda Service Hotline:	1-770-497-6400
B&S Service Hotline:	1-800-999-9333

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new mower. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060
E-mail address
lpservicedept@landpride.com

Uncrating Instructions

The crate is assembled with wire clips. The mower frame is banded to the crate floor.

1. First remove the top panel by prying the wire clips free with a pry bar. Then remove the side panels in the same way.
2. Cut metal bands securing front wheels to the crate floor. Discard bands.

Control Lever Assembly

Refer to Figure 1-1:

Control levers (#1) are factory shipped rotated down and secured with plastic ties.

IMPORTANT: Be careful not to cut the seat cover when removing packing material around the seat. **Cutting the seat cover will void its warranty**.

1. Being careful not cut control lever handles, cut plastic ties securing the control levers (#1).
2. Rotate control levers (#1) up until the bolt holes align. Install bolts (#3) and nuts (#2) as shown.
3. Align control lever handles with each other and tighten nuts (#2).

NOTE: See "Upper Control Lever Adjustments" on page 21 for final adjustments to the control levers.

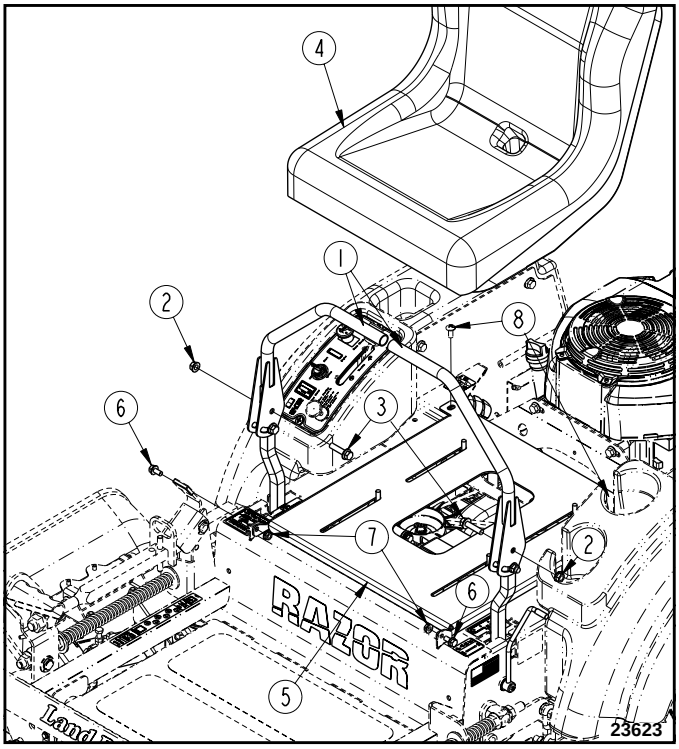
Seat Assembly

Refer to Figure 1-1:

1. The seat (#4) is factory mounted to the hinged seat platform (#5). Cut plastic ties securing the seat platform to the crate frame.
2. Spread control levers (#1) fully apart before attaching the seat platform (#5) to the mower frame.

IMPORTANT: The arm rests on the Deluxe Seat must be pivoted up when attaching the seat platform to the mower deck. **Leaving arm rests down while attaching the seat platform can cut the arm rest covers and void the warranty**.

3. Pivot the arm rest on the Deluxe Seat up.
4. Mount seat platform to the hinge tabs at the front with two 5/16”-18 x 5/8” lg. GR5 bolts (#6) and two 5/16” flange hex locknuts (#7). Tighten nuts snugly to remove all play and then back nuts up one-quarter turn.
5. Connect switch wires on the mower to the seat switch located under the seat.
6. Hinge the seat platform down and secure in place with two 5/16"-18 x 3/4" lg. phillips head machine screws (#8).
7. The seat platform is slotted so the seat can be adjusted to fit the operator. See "Seat Adjustment" on page 21 for positioning.



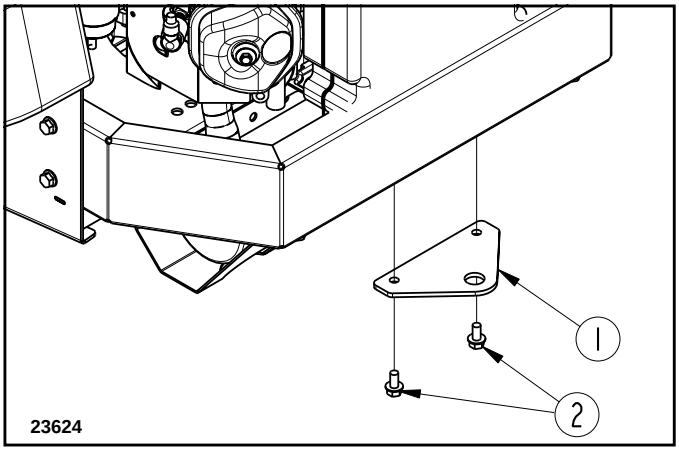
Control Lever & Seat Assembly
(Standard Seat Assembly Shown)
Figure 1-1

Hitch Plate Assembly

Refer to Figure 1-2:

A hitch plate (#1) is supplied with the mower and is shipped packaged with the manual.

1. Remove two 5/16"-18 x 5/8" GR5 hex flange screws (#2) located under the bumper.
2. Install hitch plate (#1) as shown with existing 5/16"-18 x 5/8" GR5 hex head flange screws.
3. Tighten 5/16" hex head flange screws (#2) to 17 ft. lbs. of torque.



Hitch Plate Assembly
Figure 1-2

IMPORTANT: Do not pull a trailer or implement exceeding 300 pounds towing capacity and 50 pounds tongue weight. Loss of control may result. Do not make turns that will cause a trailer or implement being towed with the hitch to come in contact with the mower or damage may result.

Electrical Cable Connection

Refer to Figure 1-3:

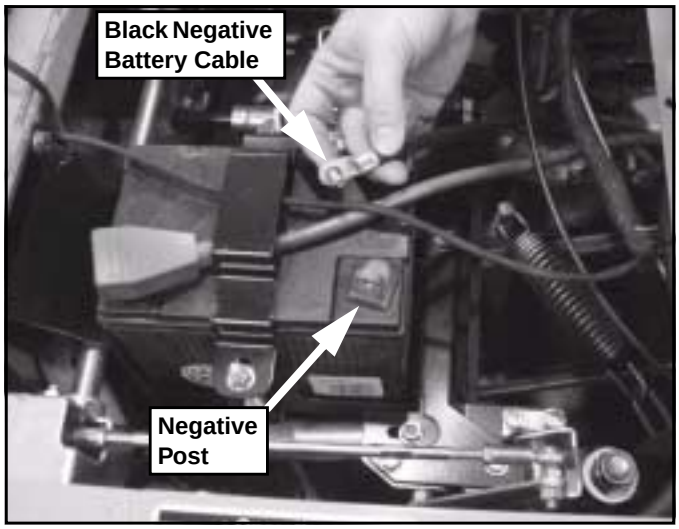
WARNING

Incorrect battery cable connections can damage mower's electrical system and cause battery cables to spark. Sparks around a battery can result in a battery gas explosion and personal injury.

- *Always **disconnect** negative (black) battery cable before disconnecting positive (red) cable.*
- *Always **reconnect** positive (red) battery cable to the positive **(+)** post before reconnecting negative (black) cable to the negative **(-)** post.*

WARNING

Keep battery terminals from touching any metal mower parts when removing or installing the battery. Do not allow metal tools to short between the battery terminals and metal mower parts. Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury.



Connecting the Negative Cable
Figure 1-3

IMPORTANT: The negative battery cable is disconnected before leaving the factory and is to be disconnected after initial dealer set-up to prevent battery discharge while setting on the dealer lot.

Connect the black negative battery cable to the battery's negative post with 1/4"-20 x 3/4" GR5 hex head serrated screw, flat washer, lock washer and nut before starting the mower. Tighten hex nut to 8 ft. lbs. of torque.

Engine Preparations

1. Check engine oil level at the dipstick. Add oil if oil is below the full mark on the dipstick. **Do not overfill**. Refer to engine manual for oil recommendation. Also see "Engine Oil and Oil Filter" instructions on page 32.

   NOTE: Vehicles are shipped from the factory with about a quart of fuel in the tank.

2. See "Fuel System" instructions on page 31 before adding fuel. Add fuel to the fuel tank.

Remove Mower From Crate Floor

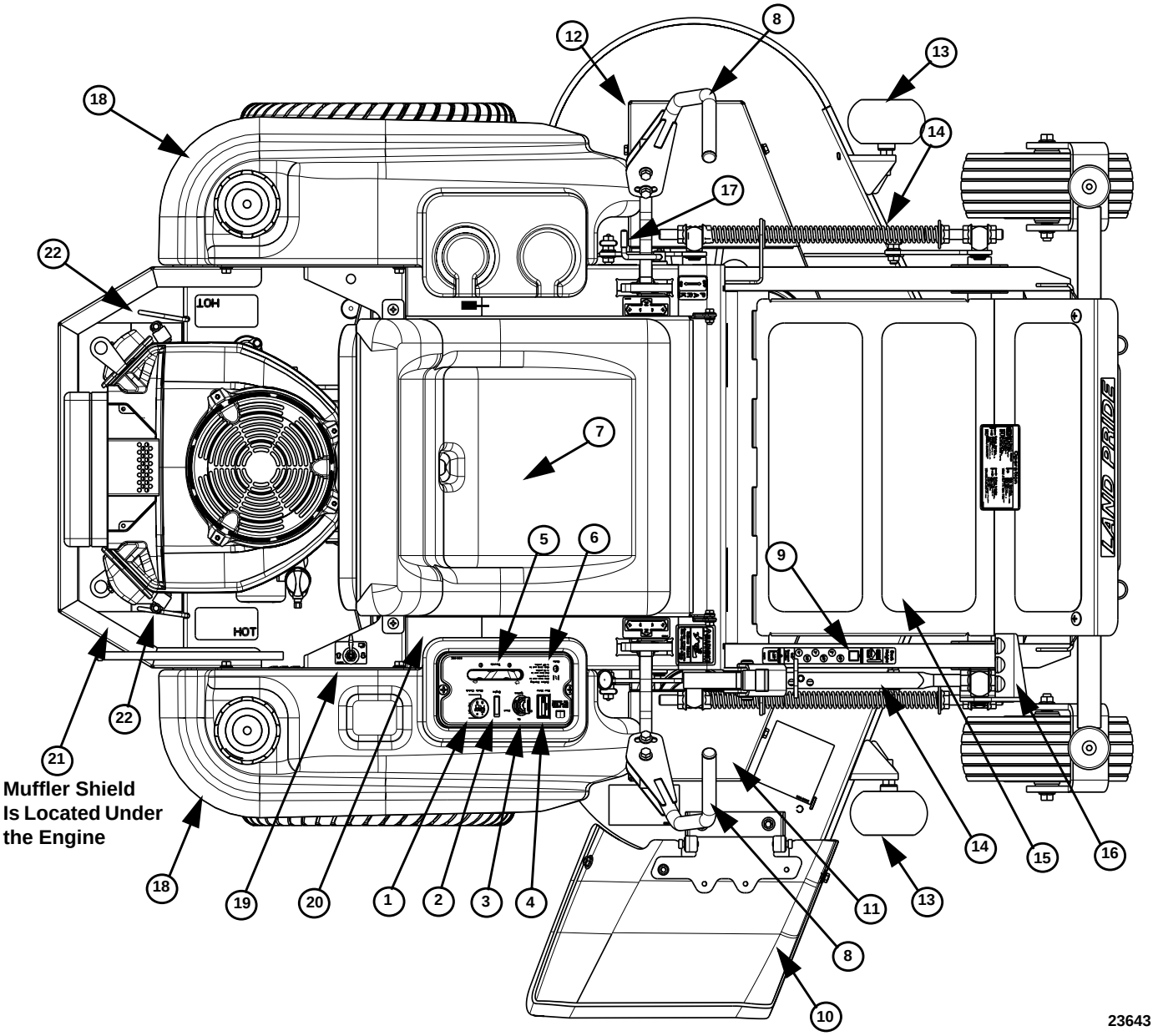
IMPORTANT: Thoroughly read and understand "Section 2: Operating Procedures", pages 10 to 18 before starting and moving the mower.

1. Make a ramp in front and level with the crate floor to be used for driving the mower off.
2. Check under the mower to make sure it is not banded to the crate floor. Remove any bands that are still present.
3. Follow all precautions and operating information provided in "Section 2: Operating Procedures" before starting and driving the mower off.
4. Raise deck fully up.
5. Start the engine and drive the mower forward off the crate floor.
6. Make necessary adjustments to the mower as outlined in "Section 3: Adjustments" beginning on page 19.

Mower Features

Refer to Figure 2-1

Your Razor riding mower is designed with innovative and state-of -the art features. Knowing the location and how these features work will make handling your mower more comfortable. Below is a list of the major features we will be reviewing in this section.



1. Blade Engagement Switch
2. Oil Pressure Light
3. Ignition Switch
4. Hour Meter
5. Throttle Lever
6. Choke Lever
7. Battery (Located under the seat)
8. Control Levers
9. Deck Height Indicator
10. Discharge Chute (Guard)
11. Right Deck Cover (Guard)
12. Left Deck Cover (Guard)
13. Anti-Scalp Wheels
14. Deck Adjusting Rod
15. Floor Platform (Guard)
16. Deck Lift Pedal
17. Park Lever
18. Fuel Tanks
19. Left/Right Fuel Tank Valve
20. Seat Platform (Guard)
21. Muffler Shield (Guard)
22. Bypass Valve Rods

Razor Features
Figure 2-1

Operating Check List

Hazard control and accident prevention are dependent upon awareness, concern, prudence and proper training involved in operation, transport, maintenance and storage of the riding mower. Therefore, it is absolutely essential that no one operates the mower without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, pgs. 1 to 6
- **Section 1: Assembly & Set-up,** pg. 8
- **Section 2: Operating Procedures**, pgs. 10 to 18
- **Section 3: Adjustments**, pgs. 19 to 25
- **Section 4: Maintenance & Lubrication**, pgs. 26 to 38

Before beginning to operate your mower the following Operating Checklist should be performed:

Operating Checklist

✔	Check	Reference
	Read **"Important Safety Information"**	Page 1
	Read **"Operating Procedures"**	Page 10
	Lubricate mower as needed. Refer to *Lubrication.*	Page 37
	Check mower safety start interlock system daily prior to operation.	Page 13
	Check mower initially and periodically for loose bolts & pins, *Torque Values Chart*.	Page 44
	Make sure all guards and shields are in place.	Page 10
	Check blade for nicks and sharpness.	Page 34

Instrumentation

Engine Oil Pressure Light

Refer to to Figure 2-2:

This light comes on when ignition switch is placed in **RUN** position and stays lit until the engine is running with a safe oil pressure. Shut engine off immediately if light comes on during operation. Locate and correct the problem.

Hour Meter

Refer to Figure 2-2:

Registers 1/10 hour increments up to 9,999.9 total hours. The meter is connected to the ignition switch and records accumulative time only while the engine is running. See "Maintenance Schedule" on page 27.

Controls

For general location of the controls described in this section, refer to Figure 2-1 on page 10 and Figure 2-2 on page 11.

WARNING

Do not operate mower while smoking!

IMPORTANT: Prevent damage to the deluxe seat arm rests when hinging the seat platform. Before hinging the seat platform up, spread the control levers fully apart, set the park lever to **(ON)** and pivot the seat arm rests up.

Ignition Switch

Refer to Figure 2-2:

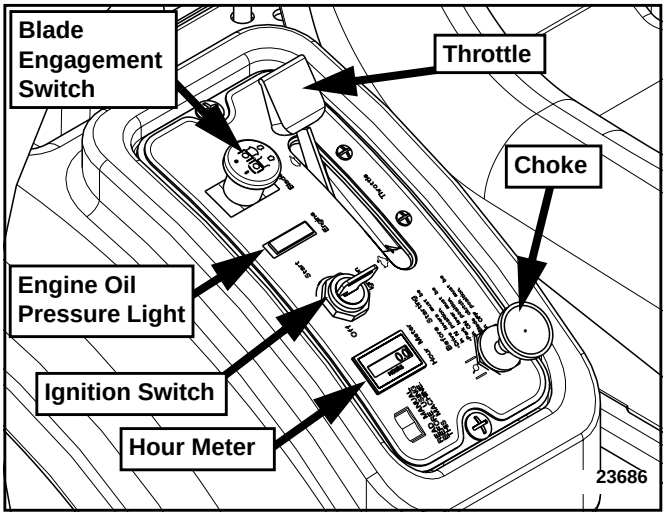
A three position ignition switch: off, run, and start is provided. With key inserted, rotate it clockwise to **START** position; release key when engine starts, and switch will automatically return to **RUN** position. Turn key counterclockwise to **OFF** position to stop engine.

Throttle

Refer to Figure 2-2:

A cable is linked from engine to throttle for controlling engine speed. Move throttle lever forward to increase engine rpm and rearward to decrease rpm. Always travel and cut grass with throttle set at full engine rpm speed. Slow down travel speed by pulling back on the control levers. Slow engine rpm speed only if mower is not traveling or powering the cutting blades.

IMPORTANT: Always operate throttle at full engine rpm while traveling or cutting grass. Slow engine rpm may overheat engine and hydraulic Pumps.



Control Panel
Figure 2-2

Choke

Refer to Figure 2-2:

A cable is linked from engine to choke knob to choke the engine during starting. When choke control knob is down, the choke is off (engine running position). When control knob is pulled up, the choke is on (engine starting position). Shut choke off soon after engine has started.

IMPORTANT: DO NOT operate mower with choke pulled up or on. (engine starting position).

Blade Engagement Switch

Refer to Figure 2-2:

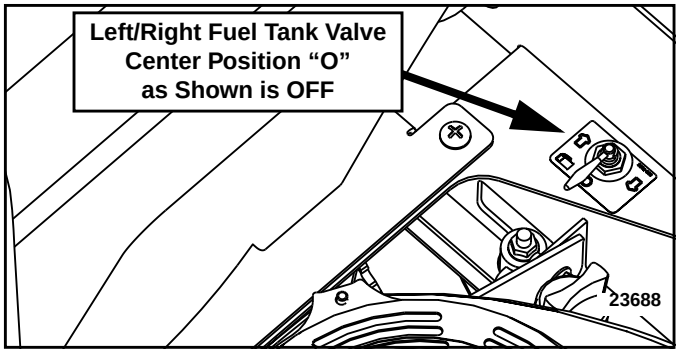
The Blade engagement switch engages the deck blades. Pull switch up to engage blades and push switch down to disengage the blades.

IMPORTANT: Never engage blades with engine running at high rpm or when the deck is under load. Clutch, belts or deck could be damaged.

Left/Right Fuel Tank Valve

Refer to Figure 2-3:

Located behind the seat on one side is the Left/Right Fuel Tank Valve for controlling which fuel tank is in use. The valve lever must be over one of the two arrows to supply fuel to the engine. Arrows point to the fuel tank being used. Switch valve from one tank to the other when tank in use is about out of fuel. The mower does not have to be turned off to make the switch. See “Fuel System” on page 31 for more information.



Left/Right Fuel Tank Valve
Figure 2-3

Control Levers

Refer to Figure 2-4 and Figure 2-5:

The control levers are used to steer, accelerate, brake and change direction. Pulling the lever handles together and pushing forward from neutral position will move the mower forward. Pushing one lever more than the other will turn the mower. Pulling back on the levers from the neutral position will move the mower in reverse and pulling one lever back further than the other will turn the mower. Use levers for braking by returning them to neutral. See “Driving the Mower” on page 14 for a detailed description of operating the control levers.

Park Lever

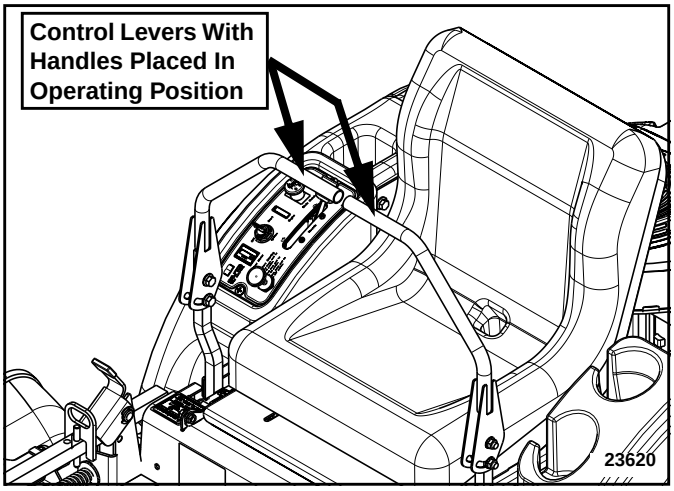
Refer to Figure 2-5 and Figure 2-6:

WARNING

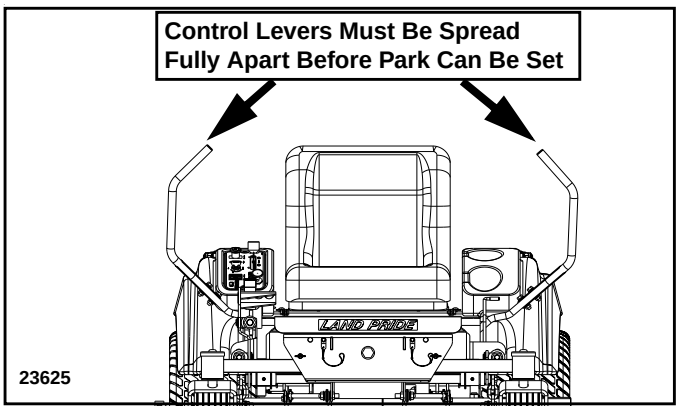
The park lever is not designed to hold the mower on steep slopes.

Both rear wheels are set in park when the park lever is engaged. To place the mower in park, set control levers in neutral, spread control levers fully apart and set the park lever to **(ON)**. The control levers will be locked in place and cannot be accidently bumped or pulled into power until the park lever is returned to the **(OFF)** position. Always set park to **(ON)** before getting off the mower and always leave the park lever in the **(ON)** position until seated and ready to start traveling.

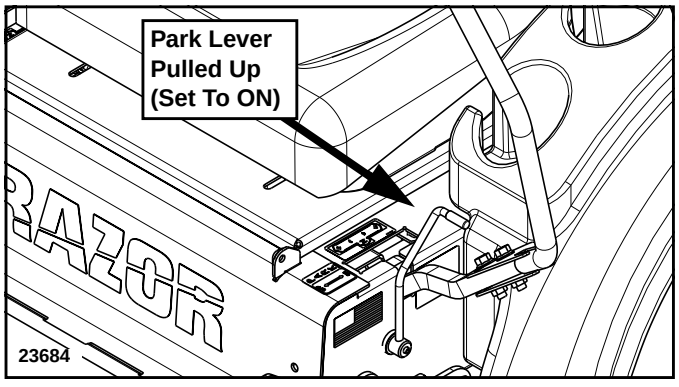
In the event of a system failure while mowing, turn the switch key off, move the control levers out and engage the park lever to **(ON)** to stop or slow the mower.



Control Levers
Figure 2-4



Control Levers Spread Fully Apart
Figure 2-5



Park Lever Set To (ON)
Figure 2-6

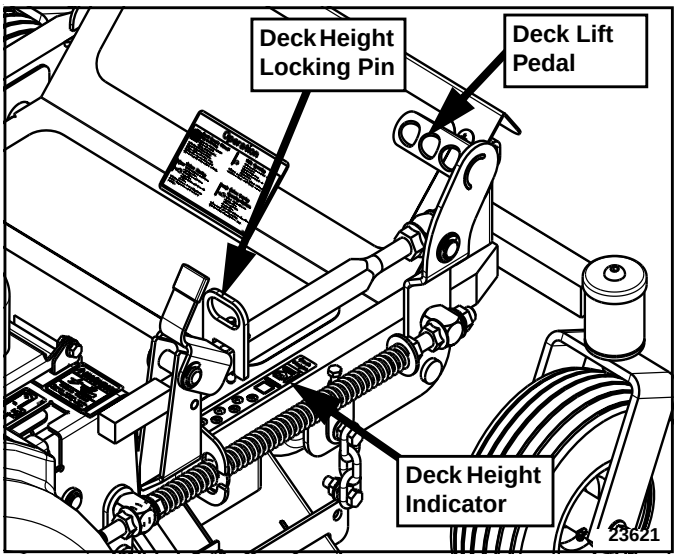
Deck Lift Pedal

Refer to Figure 2-7:

The deck lift pedal is used to raise and lower the deck and to set deck cutting height.

1. Pushing on the deck lift pedal with your foot will raise the deck.
2. Using the deck height indicator, place deck height locking pin into the desired cutting height hole.
3. Lower deck gently against locking pin.

When going over obstructions, push the deck lift pedal to raise the deck. Go around the obstruction if the deck will not raise high enough. **Never mow over obstructions you are not certain the deck will clear**.



Deck Lift Pedal
Figure 2-7

Safety Start Interlock System

The mower is equipped with a safety start interlock system consisting of park switch, seat switch and blade engagement switch. Check mower safety start interlock system daily, prior to operation. This system is an important mower safety feature. It should be repaired immediately if it malfunctions. The machine incorporates a separate seat switch which will stop the mower engine when the operator is unseated for any reason while the mower is moving or the blades are engaged. This is a safety feature designed to prevent runaway or accidental entanglement. To inspect the system:

4. The operator must be on the seat when testing the seat safety switch.
5. Spread control levers fully apart and set the park lever to **(ON)**.
6. Start mower engine per the instructions outlined in section on Engine Starting below. Allow the engine to warm up to operating temperature.
7. With the blade engagement switch down **(OFF),** and park lever set to **(ON),** slowly raise off of the seat. The engine should continue to run.
8. Set the park lever to **(OFF)** and slowly raise off the seat. The engine should **stop** within five seconds.
9. With the control levers spread fully apart and the park lever set to **(ON),** restart the engine.
10. With the park lever set to **(ON)** and the engine running at a slow idle, pull up on the blade engagement switch to turn the blades **(ON)**. Slowly raise off of the seat. The engine should **stop** within five seconds.
11. Replace the seat safety switch if the switch failed to operate properly in any of the above steps and if no other cause such as damaged wiring can be determined.
12. Contact your local Land Pride Dealer if the problem cannot be located.

Engine Starting

The Razor safety start interlock system is also designed to protect the operator and others from accidental injury due to unintentional engine starting. The engine starting motor will not engage until:

- Park lever is in the up position **(ON)**.
- Blade engagement switch is in the down position **(OFF)**.

⚠ WARNING

Never leave the machine unattended with key in ignition switch.

NOTE: The operator's seat is equipped with a separate safety switch. The engine will stop if for any reason the operator should become unseated when the park lever is **(OFF)** or the blade engagement switch is **(ON)**.

The following steps are the correct procedures for starting the engine. If difficulty is encountered, contact the Land Pride Dealer in your area.

1. Perform daily pre-operation checks before starting the mower. (See **"Operating Check List"** on page 11.)
2. Make sure the control levers are in the park position, park lever is **(ON)** and blade engagement switch is disengaged **(OFF)**.
3. Set throttle at approximately 1/2 open position.

NOTE: Use choke when engine is cold or if warm engine fails to start within 5 seconds of cranking. Avoid flooding. Operate the engine without choking as soon as possible.

4. Insert key in ignition switch and rotate clockwise to engage starting motor. Release key when engine starts.

NOTE: The engine starter should not be operated for periods longer then 30 seconds at a time. An interval of at least two minutes should be allowed between such cranking periods to protect the starter from overheating and burn-out.

5. Perform test to make sure safety start interlock system is operating properly. Refer to **"Safety Start Interlock System"** on Page 13.
6. As soon as engine begins to run, check to make certain the oil warning light is off. If not, stop engine immediately and check for the cause. Refer to **"Troubleshooting"** on page 42.
7. Allow the engine to idle a few minutes before advancing the throttle and/or engaging the blade clutch.
8. Before stopping the engine:
   - place control levers in park position with park lever up **(ON)**.
   - Disengage the blade engagement switch.
   - Throttle back to low idle for one minute to allow accumulated raw fuel to escape the muffler during engine slow down.
   - Rotate ignition key counter-clockwise to the **(OFF)** position.
   - Remove key from switch before leaving the seat.

Driving the Mower

WARNING

*In the event of a system shutdown while mowing, spread control levers fully apart and set park lever to **(ON)** to aid slowing and stopping the mower. See Figure 2-5 on Page 12.*

DANGER

When going in reverse push forward gently on control levers and avoid sudden movement. Any sudden movement could cause the front of the mower to come off of the ground resulting in possible loss of control.

To Start and Increase Speed

Refer to Figure 2-8 on page 15:

After starting the engine, engage control levers by moving the handles towards each other. This moves the levers from park position to neutral position and makes them ready for steering while traveling.

Moving control levers an equal distance away from neutral will increase travel speed.

- Start forward travel by gently pushing on the control levers. The further forward the control levers are pushed the faster the travel speed.
- Start backing up by gently pulling on the control levers. The further back the control levers are pulled the faster the travel speed.

To Decrease Speed or Stop

Refer to Figure 2-8 on page 15:

Moving control levers an equal distance towards neutral will decrease travel speed.

- When moving forward, pull back gently on control levers to decrease speed. The further back the control levers are pulled the slower the travel speed until neutral is reached.
- When backing up, push forward gently on control levers to decrease speed. The further forward the control levers are pushed the slower the travel speed until neutral is reached.
- Move control levers to neutral to stop.
- Spread both control levers fully apart and set park lever to **(ON)** to apply park brakes.

DANGER

Never make sudden stops or sudden reversing of direction, especially when going down a slope. The steering is designed for sensitive response. Rapid movement of the control levers in either direction could result in a reaction that can cause serious injury.

Steering

Refer to Figure 2-8:

After starting engine, engage the control levers and steer as follows:

- To Steer Straight While Traveling Forward:

  Push control levers forward an equal distance.
- To Steer Straight While Backing Up:

  Pull control levers rearward an equal distance.
- To Turn Left While Traveling Forward:

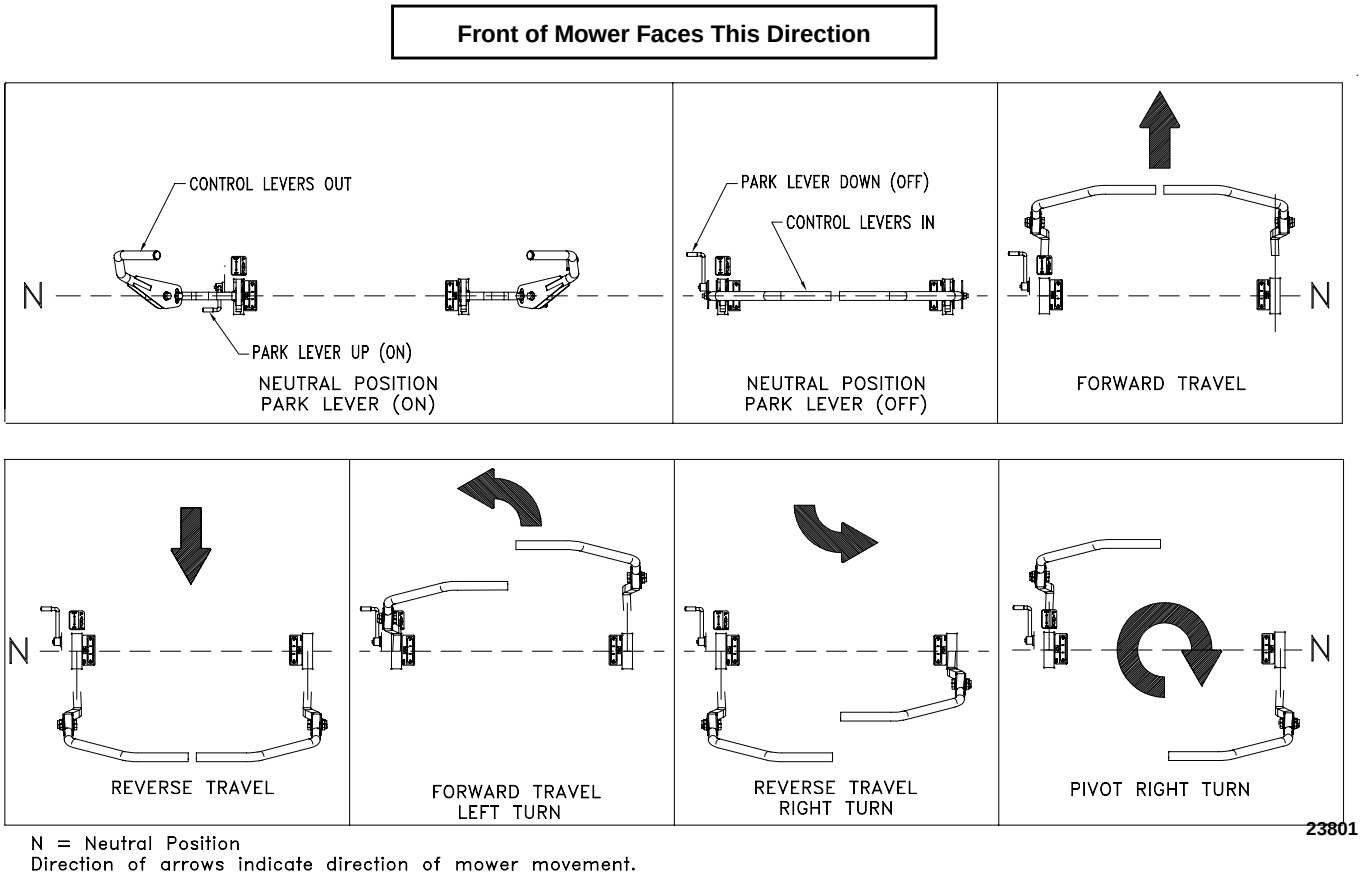
  Move right control lever farther forward from neutral than the left control lever.
- To Turn Left While Backing Up:

  Move right control lever farther back from neutral than the left control lever.
- To Turn Right While Traveling Forward:

  Move left control lever farther forward from neutral than the right control lever.
- To Turn Right While Backing Up:

  Move left control lever farther back from neutral than the right control lever.
- To Make A Pivot Turn:

  Move one control lever forward and the other control lever back of neutral, this will allow the drive wheels to counter-rotate.



N = Neutral Position
Direction of arrows indicate direction of mower movement.

Steering
Figure 2-8

Moving Mower with Stalled Engine

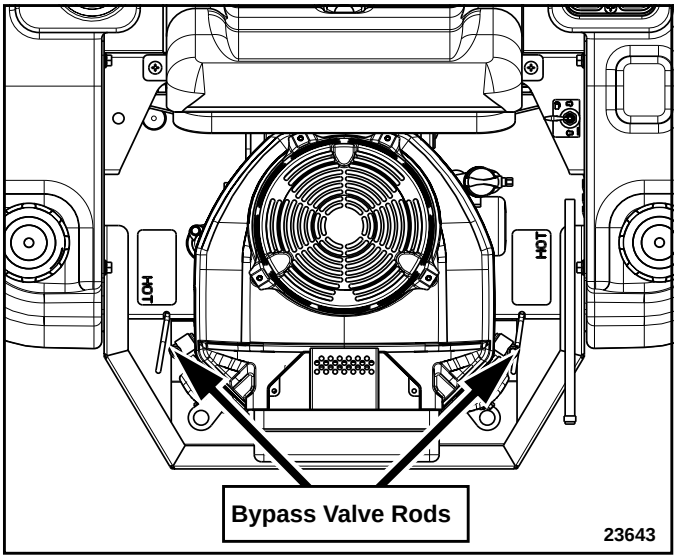
Refer to Figure 2-9:

Each hydro-drive is equipped with a bypass valve for the purpose of moving the mower when the engine is inoperable.To bypass the hydro-drives, pull out on the bypass valve rods and lift them into the slot to lock in position. Both bypass valve rods are located at the rear of the engine platform.

The park lever must be down **(OFF)** to move the mower.

IMPORTANT: Do not tow the machine. Move it by hand or use a winch and load it on a trailer.

IMPORTANT: Following repairs, always make certain the two bypass valves are returned to their operating position before operating the mower.



Bypass Valve
Figure 2-9

Safe Operating Instructions

The safe operation of any machinery is a big concern to all consumers. Your Zero Turn Riding Mower has been designed with many built-in safety features. However, no one should operate this mower before carefully reading this Operator's Manual. Also read all instructions noted on the safety decals.

- ▲ Be familiar with all functions of this mower.
- ▲ Do not operate a mower with damaged parts. Repair all damages and defective parts before putting mower back in to service.
- ▲ Keep all bystanders away from this mower during operation.
- ▲ Do not allow anyone to operate this mower who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of this mower.
- ▲ Do not allow anyone under 16 years of age to operate this mower.
- ▲ No riders allowed. Carrying a rider can result in injury and/or death to the rider and operator.
- ▲ Do not operate mower while drinking or under the influence of alcohol or drugs.
- ▲ Always park on level ground, place control levers in park, set park lever to **(ON)** and remove ignition key before leaving the mower. The mower could move before the park lever is set to **(ON)** if not stopped on level ground.
- ▲ Do not leave mower unattended with engine running.
- ▲ Always operate mower with belt guards installed. Do not leave pulleys and belts exposed.
- ▲ Wear snug-fitting clothing to avoid entanglement with moving parts.
- ▲ Keep hands, feet, long hair, clothing and jewelry away from moving parts and obvious pinch points to avoid getting caught.
- ▲ Always be aware of and avoid tree limbs and brush that have a potential of hitting and/or poking one while riding the mower. Serious body harm could result.
- ▲ Always wear long pants, safety glasses and safety shoes. Some conditions may warrant extra safety gear to be worn such as safety helmets.
- ▲ Do not touch engine, engine exhaust pipe and/or muffler while they are hot.
- ▲ Use extreme caution when driving through dry grass, brush and other fire hazard materials. Never stop or park over combustible materials. Keep grass and brush from collecting on and around engine and muffler parts.
- ▲ Battery fumes are explosive. A spark will ignite battery fumes. Wear a face shield when charging or jumping a battery. Follow all battery safety rules outlined in this manual.
- ▲ Avoid battery acid spills. Do not get battery acid on eyes, face, or other body parts. Flush eyes and other body parts immediately with water for at least 15 minutes if battery acid has gotten on them.
- ▲ Do not operate this mower on streets, highways, public roads, or where it may be a hazard to faster moving traffic.
- ▲ Never attempt wheelies, jumps, or other stunts. Never drive recklessly. Always operate your mower at a safe speed that will allow you to maintain control.
- ▲ Never modify engine RPM, or any parts on the mower without authorization. Unauthorized modifications will void warranty to all parts directly and indirectly affected by the modification.
- ▲ Do not pull a trailer or implement exceeding a gross weight of 300 pounds and 50 pounds tongue weight. Loss of control may result. Do not make turns so sharp as to cause trailer or implement being towed to come in contact with the mower. Damage may result.
- ▲ Do not attach an implement, trailer or other device to the hitch that will produce negative tongue weight.
- ▲ Do not tow the mower with its wheels on the ground. Always tow the mower loaded on a trailer.
- ▲ Use extreme caution when cresting hills or when visibility is limited. Proceed slowly until you are sure trail conditions immediately ahead are safe.
- ▲ Reduce speed on hilly, rough, wet, slick or unstable ground. Do not operate mower on slopes over 15^{o}.
- ▲ Do not operate the mower at night. With poor visibility, night operation can lead to a serious accident.
- ▲ When refueling use a UL listed container that has a screen or filter. Set container on the ground before fueling to eliminate static discharge and do not use Methanol fuel.
- ▲ Do not smoke or use electrical devices including cell phones while refueling.
- ▲ Always maintain proper tire inflation. See "Tires" on page 29.
- ▲ Always disconnect the negative battery terminal before making adjustments to the mower electrical system or welding on this mower.
- ▲ Always check wheel lug nut torque values two hours after initial operation and two hours after each tire repair and/or replacement. Routinely check lug nut torque valves every 100 hours of operation. See "Torque Values" on page 19.
- ▲ Support this mower securely before working beneath. Chock the wheels to prevent the mower from rolling.

DANGER

Prior to operating the mower the operator should be thoroughly familiar with the proper use and operation of the equipment, should read the manual completely and thoroughly, and should have attempted slow moving maneuvers to become familiar with the operation of the equipment before attempting normal speed operation. An inexperienced operator should not mow on slopes or on uneven terrain.

WARNING

Do not operate the mower while wearing any type of loose fitting clothing. Always wear safety glasses, clothing that does not hang loosely, and shoes or boots when operating this machine.

WARNING

The tailpipe and muffler are very hot and can ignite dry grasses, brush and other flammable materials. Always keep the area around the muffler and tailpipe clear of debris. Allow the muffler and tail pipe to cool completely before removing any debris to prevent sever burns to the body.

WARNING

Never direct discharge of material from mower deck towards bystanders.

WARNING

Never operate the mower deck with discharge chute removed or in raised position.

WARNING

Always check area to be mowed for rocks and other debris before mowing.

The mower's control levers are very responsive. For smooth operation, move levers slowly, avoid sudden movement. Skill and ease of operation come with practice and experience.

Inexperienced operators may have a tendency to over-steer and lose control. Slow-moving practice maneuvers are recommended to become familiar with these characteristics before attempting normal speed operation.

Sharp depressions or raised obstacles (such as gutters or curbs) should not be directly approached at high speed in an attempt to jump them as the operator could be thrown from the mower. Approach at a slow speed and angle one drive wheel at the obstruction. Continue at an angle until both wheels clear the obstruction.

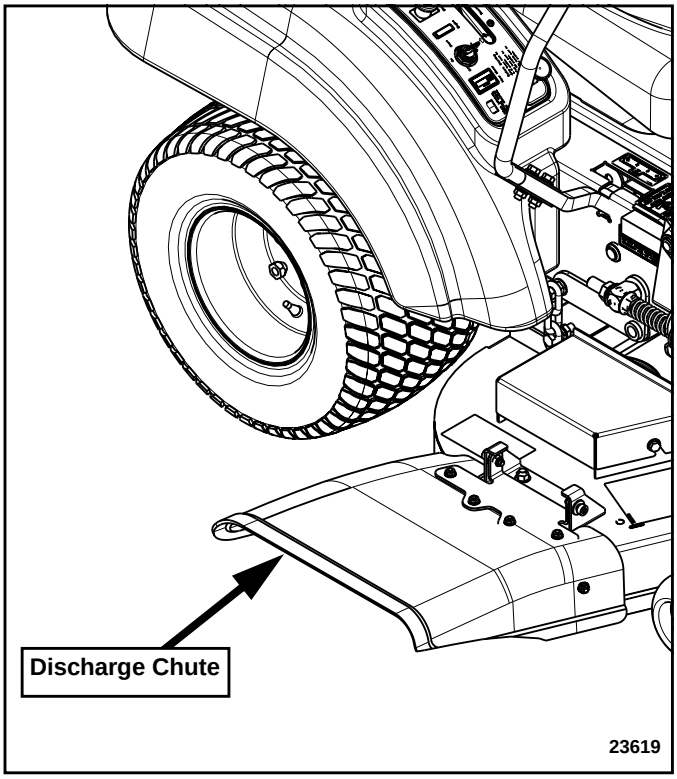
When turning on soft wet turf, keep both wheels rolling either forward or backward. Pivoting on one stopped wheel can damage turf.

Peak mowing performance is maintained when the throttle is set at full rpm. This gives maximum power to the drive wheels and deck when needed. Use the control levers to control ground speed rather than engine rpm.

Keep blades sharp. Many problems with incorrect cutting patterns are due to dull blades or blades which have been sharpened incorrectly. Information on sharpening blades is listed in this manual's maintenance section. In addition, most communities have individuals or companies which specialize in sharpening mower blades. Blade sharpness should be checked daily.

Use high blade speed. Your Razor is designed to operate at full throttle. The throttle setting directly controls blade speed. The highest blade speed generally gives the best cut.

Select a mowing pattern that discharges cut grass away from uncut grass. Generally, this means using a pattern utilizing left turns because the mower discharges cut grass is to the right. Refer to Figure 2-10. In any case, avoid discharging cut grass onto an unmowed area because grass is then mowed twice. Mowing twice puts an unnecessary load on the mower and reduces mowing efficiency.



Discharge Chute
Figure 2-10

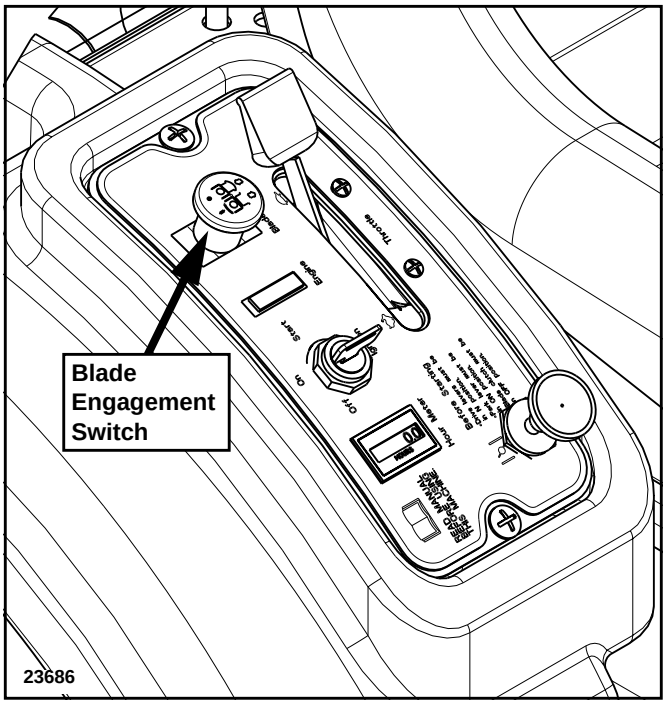
Mower Deck Operation

DANGER

Never attempt to make any adjustments to the mower deck while the engine is running or when the blades are engaged. Mower blades cannot be seen and are located very close to deck housing. Fingers and toes can be cut off instantly.

With the engine running at a medium speed, engage blades (Refer to Figure 2-11). Advance engine throttle to full rpm once the blades have become fully engaged.

NOTE: Engaging the blades at high engine rpm or when under heavy load (in tall grass for example) can cause belts to slip, resulting in premature wear or possible damage.



Blade Engagement Switch
Figure 2-11

General Operating Information

After thoroughly familiarizing yourself with the Operator's Manual and completing the Operator's Checklist, you are almost ready to begin mowing.

Approach the mower from the front. Spread the control levers fully apart if they aren't already in the wide-open position and set the park lever to **(ON)**. Taking care not to step on either side of the mower deck, step up on the operator's platform and comfortably seat yourself. With both control levers still wide apart reach for the throttle and choke control to your right side. Position the throttle control at half throttle and pull the choke to the "up/on" position. Insert your ignition key and rotate the ignition key clockwise until you hear the engine begin to start. Release the ignition key and push the choke to "down/off" position. Allow the engine to warm up momentarily. If your mower has just been running and the engine is already warm, using the choke is usually not necessary.

With the engine at half throttle, set the park lever in the **(OFF)** position and pull the control levers in to bring both control levers equally together in the neutral position just in front of you. It's now time to test your steering skills. Gently push both control levers equally forward. The farther forward you push the levers the faster you will go. Pull back equally and you will slow down coming to a stop when you reach the neutral position. Now slowly pull the levers back toward your body past neutral position. The mower will reverse direction and increase in speed as you pull further back. If you push one lever forward and pull one lever back the mower will do a Zero turn in the direction of the control lever closest to your body. Now take a few moments in a safe area to practice steering your mower with the engine still at half throttle. Gradually increase your throttle speed until you feel totally confident in your mower steering and handling ability.

After removing all obstacles from the lawn, it is now time to cut the grass. With your mower at half throttle, place your right foot on the deck lift pedal and release and lower the deck to your preset cutting height. With your right hand, pull up on the cutting blade engagement knob and increase the engine speed to full throttle. You may now begin mowing.

When you are done mowing or just want to take a break, make sure you:

- Park on level ground
- Disengage the cutting blades
- Throttle back
- Move the control levers to wide-open
- Set the park lever to **(ON)**
- Turn the engine off
- Remove the key
- Step carefully off the front of the machine.

WARNING

Unless specifically required, DO NOT have engine running when servicing or making adjustments to the mower. Place control levers in the park position, set the park lever to ***(ON)*** *and remove ignition switch key.*

Repairs or maintenance requiring engine power should be performed by trained personnel only. To prevent carbon monoxide poisoning, be sure proper ventilation is available when engine must be operated in an enclosed area. Read and observe safety warnings in front of manual.

Your Razor was adjusted before it left the factory and was checked during pre-delivery set-up. However, after start-up and continued use, a certain amount of break-in wear will cause some adjustments to change.

Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

WARNING

Keep your machine clean. Remove heavy trash deposits and clippings from the machine. Keep all moving parts, hydraulic system, engine cooling system and exhaust system clean of trash and clippings. Accumulation of trash and/or clippings can cause fires, hydraulic overheating and excessive belt wear.

Clear away heavy build-up of grease, oil and dirt, especially in the area of oil, fuel and engine combustion air; minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Land Pride service center when assistance is needed.

Torque Values

WARNING

Particular attention must be given to tightening the drive wheel lug nuts and blade spindle bolts. Failure to correctly torque these items may result in the loss of a wheel or blade, which can cause serious damage or personal injury.

Torque Values		
	FT - lbs.	**N-m**
Wheel lug nuts	75	102
Blade bolts	135	183

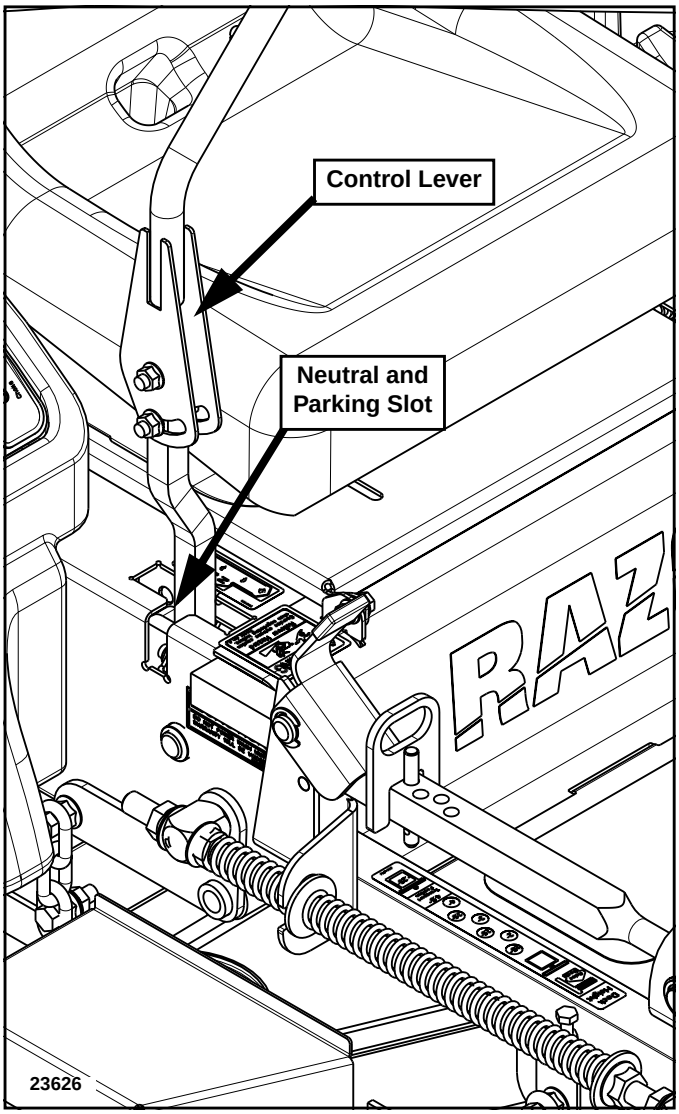
It is recommended that the following be checked after the first 2 hours of initial operation, and every 50 hours following removal for repair or replacement:

- Wheel lug nuts
- Wheel motor nuts
- Blade bolts
- For engine torque values, see engine owner's manual.

Steering Linkage

Refer to Figure 3-1:

The steering has been factory adjusted to eliminate creeping when control levers are in neutral position. However, should the mower begin to creep, adjustments can be made as outlined on the following page.



Control Lever In Neutral Position
Figure 3-1

Control Lever Neutral Adjustment

Before considering any adjustment, check tire air pressure and make certain hydraulic oil is at operating temperature. Unequal tire pressure will cause mower to drift to one side. Refer to **"Tire Inflation Chart"** on page 22 and page 44.

Adjustments for neutral position is made to the pump linkage rods located between the control lever and pump arms. The pump linkage rods are properly adjusted when control levers are in neutral position and drive wheels are not turning.

Refer to Figure 3-2:

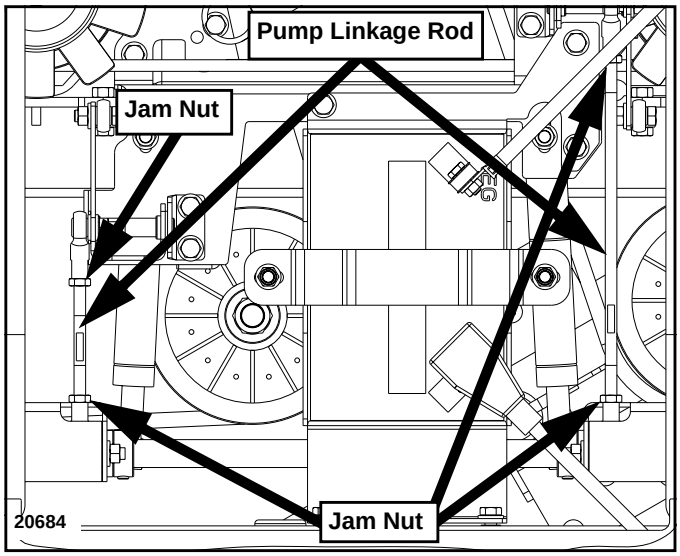
If the mower creeps in neutral position, adjust pump linkage rods, located under the seat, as follows:

1. Raise and block mower up to support drive wheels off the floor.

WARNING

Make certain mower is secure when it is raised and placed on the jack stands. The jack stands should not allow the mower to move when the engine is running and the drive wheels are rotating. Use only certified jack stands.

2. Position control levers in neutral position and disengage blades.
3. Start engine and observe which way the wheels are rotating.



Steering Control Linkage
Figure 3-2

4. If wheel is rotating forward:
   a. Loosen jam nuts on the pump linkage rod.
   b. Rotate rod to lengthen the steering control linkage until the wheel comes to a stop.
   c. Repeat for the opposite side if necessary.
   d. When both wheels remain in neutral, tighten jam nuts to lock pump linkage rod(s) in place.
5. If wheel is rotating in reverse:
   a. Loosen jam nuts on pump linkage rod.
   b. Rotate rod to shorten steering control linkage until the wheel comes to a stop.
   c. Repeat for the opposite side if necessary.
   d. When both wheels remain in neutral, tighten jam nuts to lock the pump linkage rod(s) in place.
6. Test again by moving control levers forward and backward before returning them to neutral position. The unit is ready for operation if the tires do not rotate with the control levers in neutral.
7. Turn ignition switch off, place control levers in park and set park lever to **(ON)**. Remove support blocking and safely lower mower wheels to the floor.

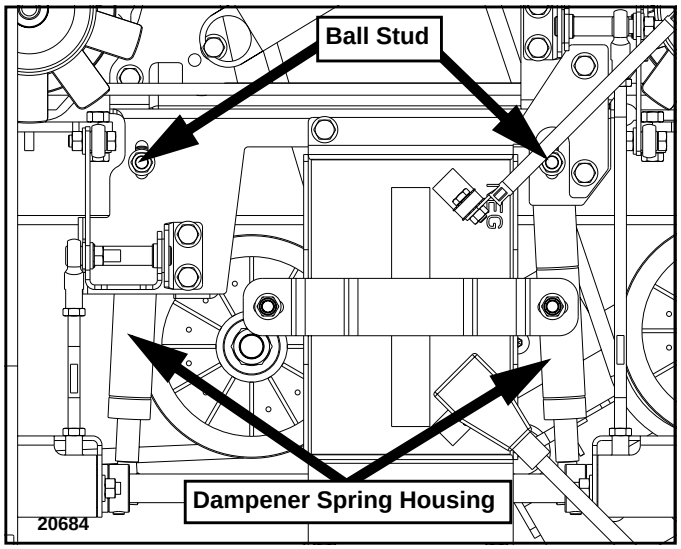
Steering Dampener

Refer to Figure 3-3:

The steering dampeners, located under the seat, are incorporated into the unit to provide some resistance when control levers are moving forward or rearward.

Make sure steering dampeners are adjusted properly by moving control levers to the reverse position and releasing them. If control levers return to neutral position, they are working correctly. Adjust control levers if they do not return to neutral. Adjusted as follows:

1. Place control lever in neutral position.
2. Adjust left dampener rod:
   a. Loosen nut on the left front ball stud.
   b. Pull dampener spring housing, to the rear, past the point that the internal spring is engaged.
   c. Release dampener spring housing and allow the internal spring to bring the housing back to neutral position.
   d. Retighten left front ball stud nut.



Steering Dampener
Figure 3-3

3. Repeat step 2 to adjust the right dampener rod.
4. Check steering dampeners:
   a. Move the control levers to reverse position and release. The control levers should return to neutral position.
   b. Repeat steps 1 through 4 if control levers do not return to neutral position.

NOTE: The dampener must not bottom out when the pump lever is fully stroked in either direction.

Seat Adjustment

Refer to Figure 1-1 on page 8:

IMPORTANT: The arm rests on the Deluxe Seat must be pivoted up before hinging the seat platform forward. **Leaving the arm rests down while hinging the seat platform forward can cut the arm rest covers and void their warranty**.

The seat platform is slotted so the seat can be adjusted to the operator. Loosen the seat mounting hardware located under the seat and adjust the seat forward or rearwards to a length that is comfortable for the operator to raise and lower the mower deck with his right foot. Tighten the seat mounting hardware once the seat is adjusted.

Upper Control Lever Adjustments

IMPORTANT: Do not make adjustment to the lower control levers since they are already adjusted for neutral creep on page 20.

The control levers may be adjusted while in the neutral position for height, reach and forward travel to fit the operator's steering comfort zone.

Height Adjustment

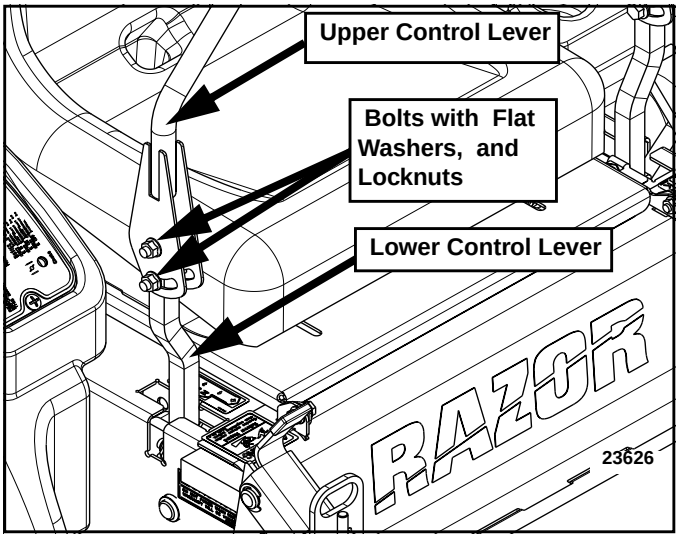
Refer to Figure 3-4:

1. Adjust control levers vertically by removing the bolts, flat washers, and locknuts that attach the upper control levers to the lower control levers.
2. Reposition upper control levers to a height that fits the operator's personal preference.
3. Reassemble bolts, flat washers, and locknuts in the same order they were removed without tightening them.

Reach Adjustment

Refer to Figure 3-4

1. Pivot the upper control levers forward or backward to fit the operator's personal reach preference. If reach comfort zone can not be achieved, then try exchanging sides the levers are located:
   a. Remove the bolts, flat washers, and locknuts that attach the upper control levers to the lower control levers.
   b. Switch right control lever with left control lever and reassemble the bolts, flat washers, and locknuts in the same order they were removed without tightening them.
   c. Pivot the upper control levers forward or backward to fit operator's personal reach preference.
2. Verify that the control levers align with each other when in the neutral position and tighten the locknuts to the correct torque.



Control Lever Adjustment
Figure 3-4

Forward Travel Adjustment

Refer to Figure 3-4:

"Reach Adjustment" instructions are for adjusting the control levers to be equally aligned while in neutral. However, with this adjustment, the mower may want to steer slightly to the right or left when pushing the levers equally forward.

Make the following adjustments if you prefer to have the levers equally aligned while in forward travel position instead of while in neutral position:

1. While driving forward, make the necessary steering correction required to make the unit go straight and take careful notice of how the upper control levers are positioned. (The distance one lever is ahead of the other to make the mower travel straight.)
2. Stop the mower on a level surface, place the control levers in neutral, shut the power off and remove the switch key.
3. Either adjust the upper trailing lever forward by the distance it was trailing or adjust the upper leading lever back by the distance it was leading. Tighten the locknuts to correct torque.

   Example:
   If the right control lever is one inch ahead of the left control lever, stop the unit and either adjust the right upper control lever back one inch or adjust the left upper control lever forward one inch.

Hydro-Drive Belt Adjustment

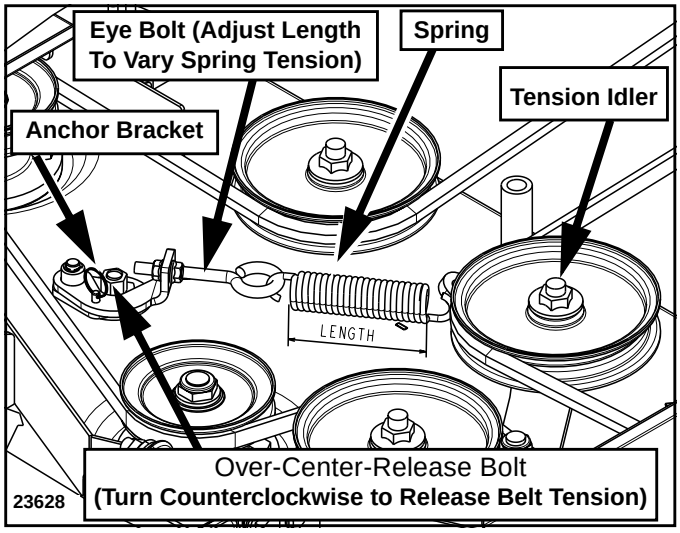
The pump drive belt tension remains constant by means of a tension idler and spring. There is no tension adjustment of this belt.

Deck Drive Belt Adjustment

The spindle belt remains in constant tension by means of a spring tensioned idler. The spring tension should be adjusted so that the belt does not slip under normal operating load conditions and may require readjusting as the belt stretches and wears. The belt should be replaced if it is excessively worn or damaged.

Refer to Figure 3-5 and Figure 3-6:

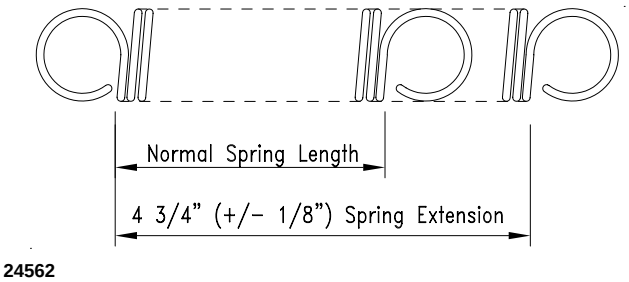
Check spring length to verify if belt is tensioned correctly. Installed spring length should be 4 3/4" +or- 1/8". Vary the spring length by adjusting the length of the eye bolt.



Drive Belt Adjustment
Figure 3-5

Excessive belt tension may lead to premature damage of belt and drive components and is also a safety hazard to the operator and bystanders. Not enough belt tension may also lead to premature belt damage due to excessive belt slippage.

IMPORTANT: Do not over tension the spring to compensate for a badly worn belt or pulley.



Deck Drive Belt Adjustment
Figure 3-6

Engine RPM Setting

The Razor is designed so that the engine will run at 3600 rpm static pump load only. At this speed the hydraulic pumps are running at their maximum rated speed.

Deck Leveling & Height Adjustment

The mower deck has three areas that may need to be checked and adjusted periodically. Before considering any mower deck leveling adjustments, check that the tire air pressure is within the specified range.

WARNING

Stop engine. Make sure blade engagement switch is in the down (OFF) position. Place control levers in park position and set park lever to (ON) before leaving machine.

Deck Level Adjustments

Leveling the deck must be done in the following order:

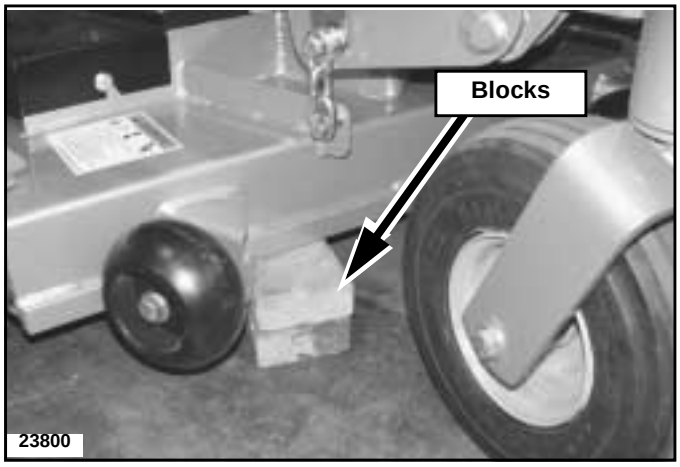
1. Check tire pressures to make certain they are properly inflated before leveling deck.

Tire Inflation Chart	
Tire	**Inflation PSI**
Drive Wheels	8-12
Gauge Wheels	8-12

2. Park the unit on a flat surface.

Refer to Figure 3-7:

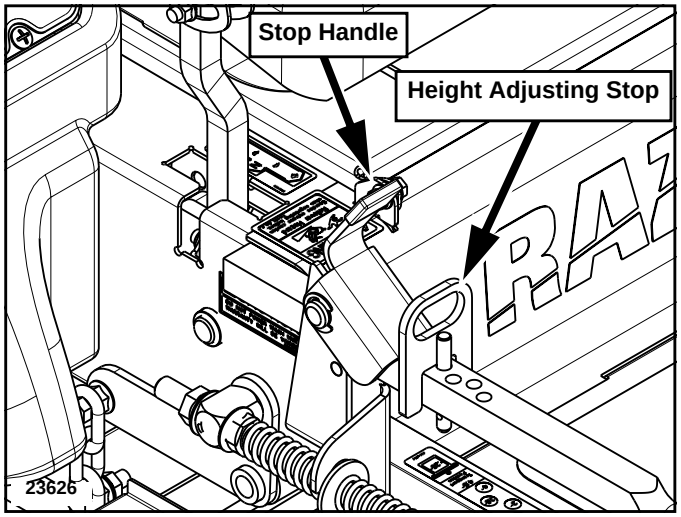
3. Raise deck fully up.
4. Position the blade cutting height at 3 1/4” by placing 3" high deck support blocks under the deck edge in three locations:
   a. Place two of the 3" support blocks under the deck front edge in-line with the far left and far right blade spindles.
   b. Center the third 3" support block under the deck back edge.



Blocking up Deck
Figure 3-7

Refer to Figure 3-8:

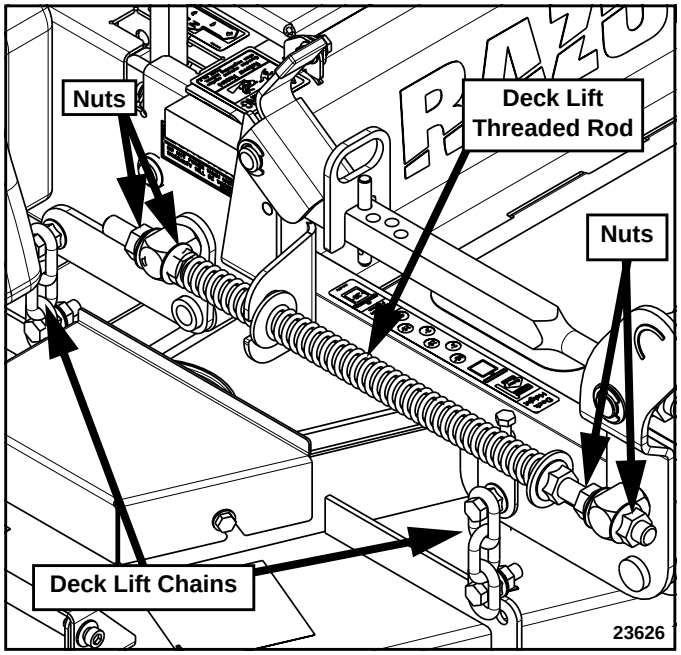
5. Set cutting height at 3 1/4” on the height indicator by placing the height adjusting stop in the 3” hole, and turning the height adjustment stop so that the flat side is against the stop handle.
6. Clamp the height adjusting stop against the stop handle. This will assure that the height will not move during the setting process. Otherwise, spring pressure from the deck lift springs will tend to pull the stop away from the handle.



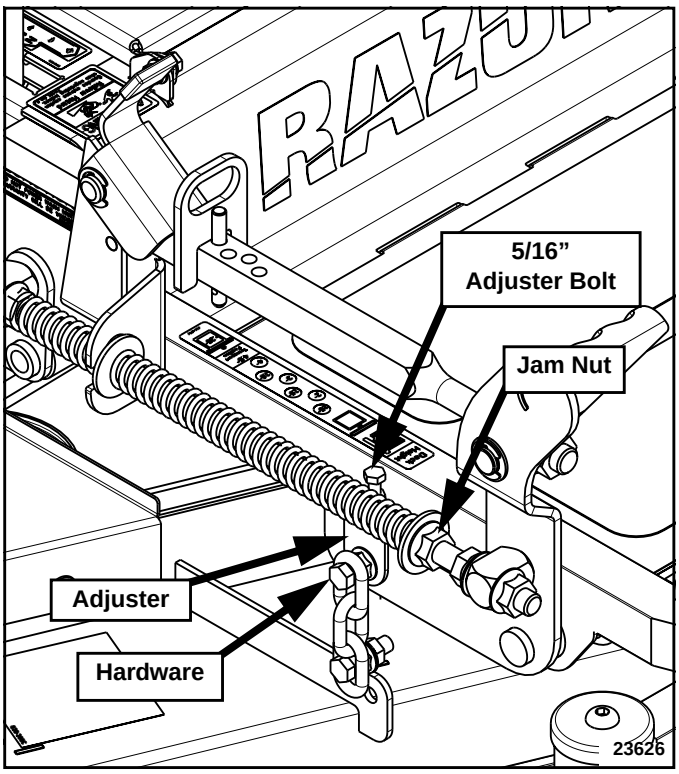
Cutting Height (Right Side Shown)
Figure 3-8

Refer to Figure 3-9 & Figure 3-10.

7. On both sides of the mower, loosen all nuts on the deck lift threaded rods and hardware on the adjuster until all deck lift chains are loose and the deck is sitting tightly on all three blocks.



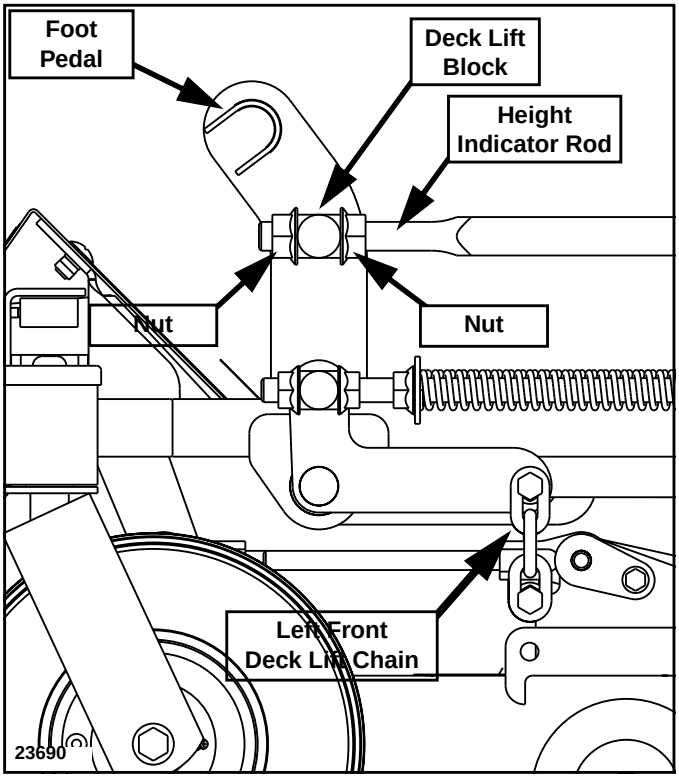
Deck Level Adjustment (Right Side Shown)
Figure 3-9



Deck Level Adjustment (Right Side Shown)
Figure 3-10

Refer to Figure 3-11:

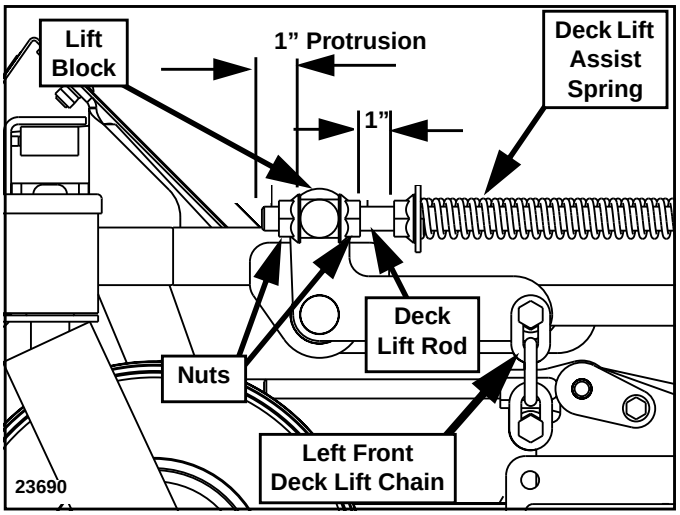
8. Loosen the two nuts on the front of height indicator so that the foot pedal is free.



Deck Lift Rod Adjustment (Left Side of Foot Pedal Shown)
Figure 3-11

Refer to Figure 3-12:

9. Start the leveling process on the left front side of the mower.
10. Set the amount of threads on the deck lift rod to protrude approximately 1” pass the lift block.
11. Jam both nuts against the lift block.
12. Push or pull on the deck lift foot pedal until the chain on the left front just becomes tight, making sure that the deck stays tight against the 3” block.



Deck Lift Rod Adjustment (Left Front Side Shown)
Figure 3-12

Refer to Figure 3-11:

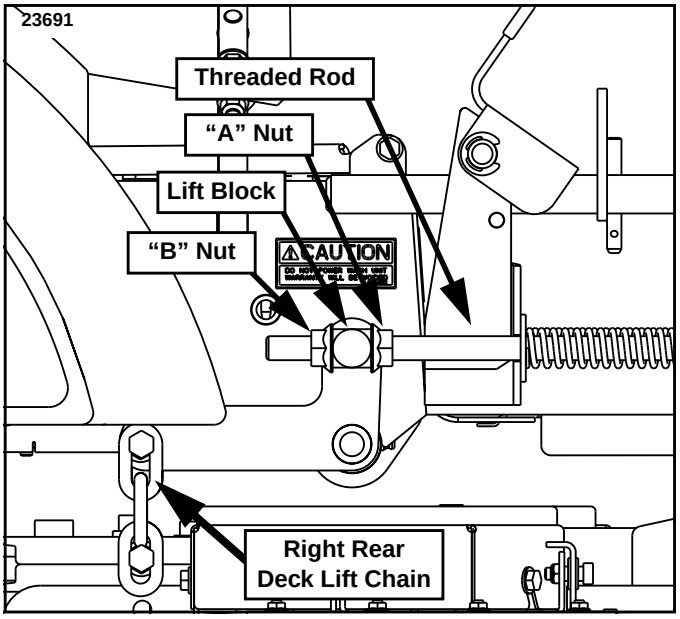
13. While keeping the left front chain tight, tighten the nuts against the deck lift block on the height indicator rod.

Refer to Figure 3-10 on Page 23:

14. Go to the right front of the mower.
15. Loosen the 5/16” jam nut for the 5/16" adjuster bolt and then back the adjuster bolt out to allow the adjuster to move up and down freely.
16. Be sure that the adjuster is free to move up and down. Tighten the adjuster bolt until the chain just becomes tight. Make sure the deck stays tight against the 3” block.
17. Tighten the adjuster bolt jam nut to prevent the adjuster bolt from moving.
18. Tighten the hardware holding the chain and adjuster onto the deck lift arm.

Refer to Figure 3-13

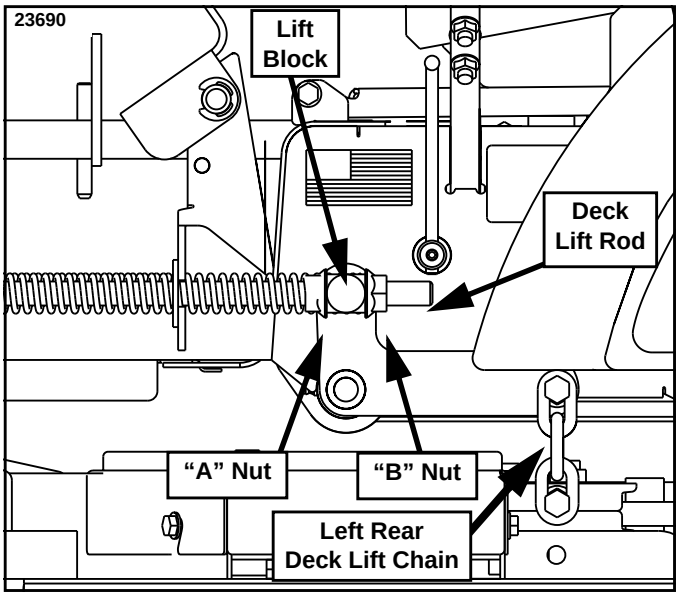
19. Go to the right rear of the mower.
20. Make sure that there is still slack in the back right lift chain. If not, loosen the two nuts (“A” & “B”) on the lift block until there is slack in the right rear deck lift chain.
21. Tighten “B” nut until the chain just becomes tight, making sure that the deck stays tight against the 3” block.



Deck Lift Rod Adjustment (Right Back Side Shown)
Figure 3-13

Refer to Figure 3-14:

22. Go to the left rear of the mower.
23. Make sure that there is still slack in the chain. If not, loosen the two nuts (“A” & “B”) on the lift block until there is slack in the left rear deck lift chain.
24. Tighten “B” nut until the chain just becomes tight, making sure that the deck stays tight against the 3” block.
25. Tighten both RH and LH “B” nuts one more full turn to raise rear of the deck to be approximately 1/4" higher than the front.
26. Tighten “A” nut on both sides to jam it and “B” nut tightly against the lift block.



Deck Lift Rod Adjustment (Left Rear Side Shown)
Figure 3-14

Refer to Figure 3-12 on Page 24:

27. Compress the deck lift assist springs so that there is 1” of space between the front nut and on the spring and the rear nut on the deck lift block. Typical both sides.
28. When completed, all chains will be tight, and deck cutting height will be set to the deck height indicator.

Deck Cutting Height Adjustment

Deck height is adjustable from 1 1/2” to 4 1/2” in 1/4” increments. The holes in the height adjusting bar are spaced at 1/2” intervals. By turning the height adjusting stop around, 1/4” increments can be attained due to the 1/4” plate that is part of the stop. Refer to Figure 3-8.

EXAMPLES:

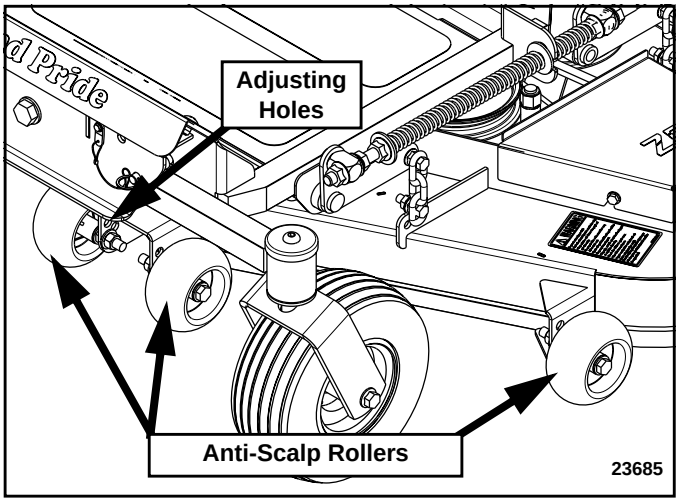
- When the height adjusting stop is placed in the 1 1/2” hole, with the 1/4” plate facing to the front of the unit, the cutting height is at 1 1/2”. When the height adjusting stop is placed in the 1 1/2” hole, with the 1/4” plate on the operator’s side of the hole, the cutting height is at 1 3/4”.
- When the height adjusting stop is placed in one of the holes, with the 1/4” plate on the operator’s side of the hole, the deck height will be set at one of the following: 1 3/4”, 2 1/4”, 2 3/4”, 3 1/4”, 3 3/4” or 4 1/4”.
- When the height adjusting stop is placed in one of the holes, with the 1/4” plate facing to the front of the unit, the deck height will be set at one of the following: 1 1/2”, 2”, 2 1/2”, 3”, 3 1/2”, or 4”.

The notch located at the rear of the right height adjusting bar (4 1/2” height) is to used when the deck is placed in the transport mode.

Anti-Scalp Rollers

Refer to Figure 3-15:

Anti-scalp rollers are standard on the Razor. These anti-scalp rollers are designed to minimize scalping when mowing on rough uneven terrain.



Anti-Scalp Roller Adjustment
Figure 3-15

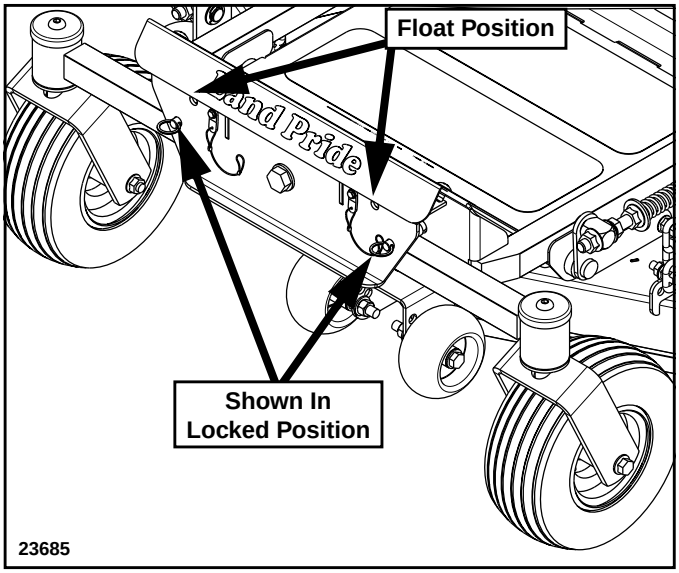
After setting the cutting height, adjust the front anti-scalp rollers so they extend below the deck but do not contact the ground. They should always be at least 1/4” to 3/4” below the deck. With the unit sitting on a flat level surface, the front wheel position can be adjusted up or down as needed from 3/4” to 1 3/4” below the blade surface. Move the front wheels up or down, in 1/2” increments, using the different axle mount holes in the roller mount bracket.

NOTE: When the anti-scalp rollers are installed, the minimum cutting height is 1 1/2” with the anti-scalp rollers set at 3/4”.

Pivot Front Wheels

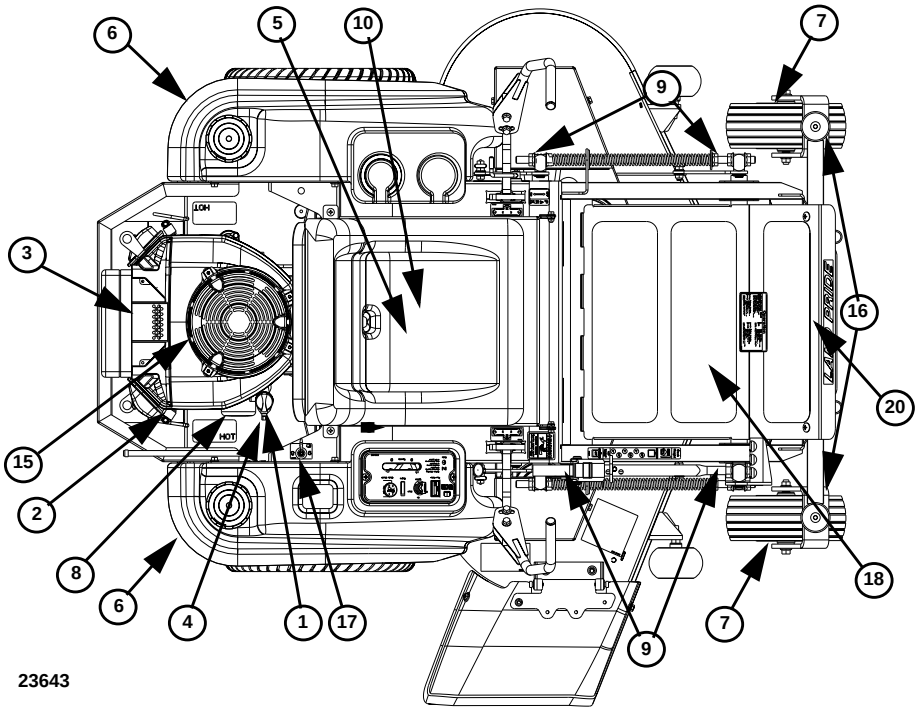
Refer to Figure 3-16

The front wheels can be set to pivot about the center of the mower frame to allow the front wheels to float with the contour of the ground or locked to prevent the wheels from floating. Place the pins in the appropriate holes to obtain the desired functions.



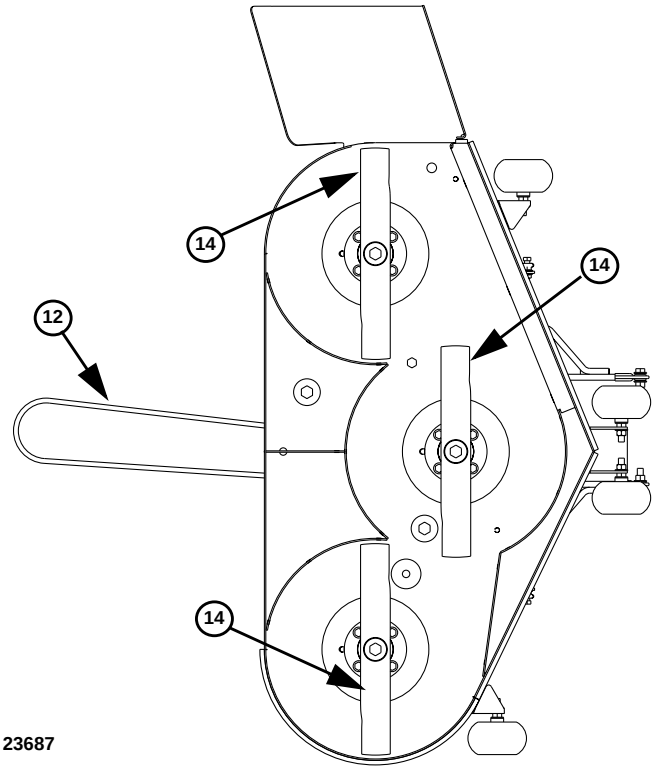
Pivot Locking Pins
Figure 3-16

Maintenance Locations

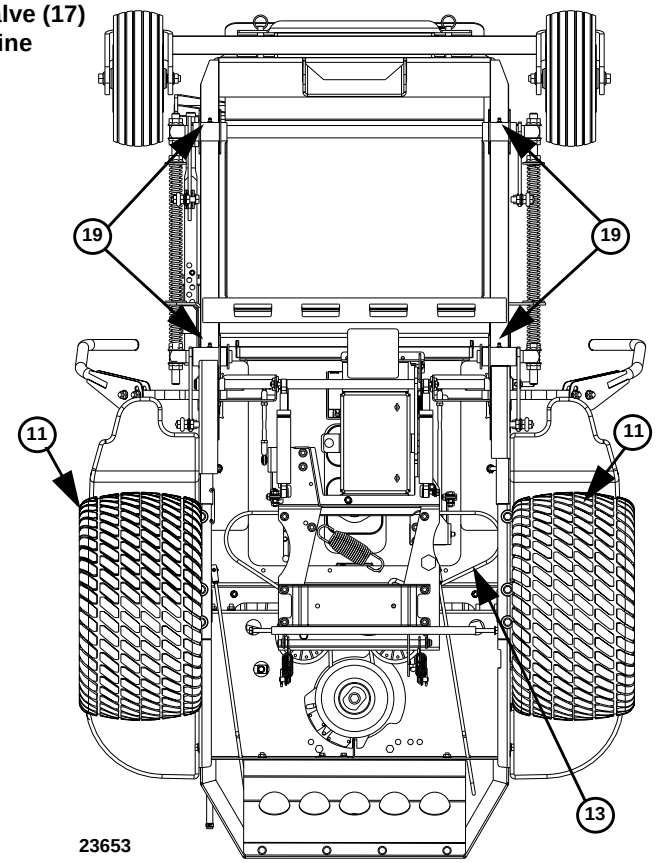


1. Engine Oil Fill & Dipstick
2. Fuel Filter
3. Engine Air Cleaner
4. Engine Oil Drain Plug
5. Battery (located under seat)
6. Fuel Tanks
7. Gauge Wheel Bearing Zerk (2)
8. Engine Oil Filter
9. Deck Height Pivot Zerks (4)
10. Safety Interlock Switch (park) (located under seat)
11. Drive Tire
12. Deck Belt
13. Pump Belt
14. Blades
15. Engine Air Intake Screen
16. Front Gauge Wheel Tires
17. Left/Right Fuel Tank Valve
18. Floor Panel
19. Deck Lift Pivot Zerks
20. Front Axle Center Pivot Zerk (located under floor panel)

Top View (Honda Engine Shown)
Oil fill & dip stick (1), fuel filter (2), Oil filter (8) and fuel tank valve (17) are located on the left side for the Briggs & Stratton engine



Deck Bottom View



Bottom View
Drive motors removed for clarity

Figure 4-1

Maintenance Schedule

Service at Intervals Indicated	Every 25 Hours	Every 50 Hours	Every 100 Hours	Every 200 Hours	Refer to Page
Clean mower, Deck & Engine Cooling System	Daily (After engine has cooled.)				28
Verify Safety Start Interlock System	Daily (Before each use)				13
Inspect Unit for loose hardware and damage	Daily (Before each use)				28
Visually Inspect Tires	Daily (Before each use)				29
Check Engine Oil Level	Daily (Before each use or every 4 hours, whichever comes first)				32
Clean Air Intake Screen	Daily (Before each use or every 4 hours, whichever comes first)				33
Check Fuel Level	Daily (Before each use)				31
Blades - Sharp & Securely Fastened	Daily (Before each use)				28 & 34
Discharge Chute - Securely In Place & In Lowest Position	Daily (Before each use)				
Service Air Cleaner (6)	X				33
Grease Blade Spindle Bearings	X				37
Change Engine Oil & Filter (1)		X			32
Clean Cylinder And Head Fins		X			33
Check Battery Connections		X			9 & 29
Check Tire Pressure With A Gauge		X			29
Clean Engine Exterior (3)		X			33
Grease Deck Lift Pivot Points (8)			X/M		38
Grease Front Azle Center Pivot (8)			X/M		38
Grease Gauge Wheel Bearings			X		38
Check Pump And Deck Belt Tension (4)			X		33
Check Fuel and Hydraulic Lines (5)			X		31
Tighten Lug Nuts On Wheels (2)			X		28
Replace Air Cleaner Paper Element			X		33
Change Fuel Filter			X		32
Replace Spark Plugs				X	33
Change Transaxle Hydraulic oil & Filter (7)				X	30

NOTES:

1. Initial engine oil and oil filter change is after the first 5 hours of operation. Thereafter, change engine oil and oil filter every 50 hours of operation. Change every 25 hours when operating the engine under dusty or dirty conditions, heavy load, high temperatures and hot weather periods. Refer to Engine Owner's Manual.
2. Torque lug nuts initially and after first 2 hours of operation.
3. Refer to Engine Owner's Manual.
4. Inspect pump and deck belt tensions every 6 months or 100 hours and replace if worn or cracking is noticed. Otherwise, replace every 200 hours or 2 years whichever comes first.
5. Check fuel line hoses, fuel valve and grommet for any cracks or leaks.
6. Clean air cleaner more often under dusty conditions or when airborne debris is present. Replace air cleaner, if very dirty.
7. Initial transaxle hydraulic oil and filter change is after the first 50 hours of operation. Thereafter, change transaxle hydraulic oil and filter ever 200 hours of operation.
8. X/M = Service per hours indicated in column or monthly (whichever comes first).

Maintenance

WARNING

Read and observe all safety warnings in this manual and in the engine service manual.

WARNING

Except when checking or changing components, always keep protective shields on for safety as well as for cleanliness.

WARNING

Keep your machine clean and remove any deposits of trash and clippings, which can cause engine fires and hydraulic overheating as well as excessive belt wear.

WARNING

DO NOT have engine running when servicing or making adjustments to the mower. Place control levers in the neutral position, disengage blade engagement, shut engine off and remove ignition switch key.

DANGER

Repairs or maintenance specifically requiring engine power should be performed by trained personnel only. Control levers should be set in park position with the park lever set to (ON). If the control levers are to be operated, the tires should be properly supported off the floor. Enclosed areas should be properly ventilated to prevent carbon monoxide poisoning.

WARNING

Before working on or under the deck, make certain the engine cannot be accidentally started. Shut engine off and remove ignition switch key for maximum safety. Repairs or maintenance requiring engine power should be performed by trained personnel only.

DANGER

Exercise caution when working under the deck as the mower blades are extremely sharp. Wearing gloves is advisable when working around or with the blades.

WARNING

When possible, clean under mower using a stick or similar instrument making sure that no part of the body, especially arms and hands are under mower.

IMPORTANT: The arm rests on the Deluxe Seat must be pivoted up before hinging the seat platform forward. **Leaving the arm rests down while hinging the seat platform forward can cut the arm rest covers and void their warranty**.

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis.

Check initially and periodically for loose bolts and pins. Torque loose bolts per the “Torque Values Chart” on page 44. Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially in the engine and under the seat platform; minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

Inspect mower daily for grass clippings, tangled wire and string. The underside of the mower deck will collect a build-up of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement and will usually produce a poorer quality of cutting. Therefore, debris should be routinely removed from under the deck.

To do this it will be necessary to raise and block the deck in the full up position and scrape the build-up from underneath.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Land Pride dealer when assistance is needed.

Torque Values

WARNING

Particular attention must be given to tightening the drive wheel lug nuts, blade spindle bolts and electric clutch bolt. Failure to correctly torque these items may result in the loss of a wheel, blade or burnt clutch which can result in serious damage and/or personal injury.

It is recommended that the lug nuts, spindle bolts and electric clutch bolt be checked after the first 2 hours of initial operation and after removal for repair or replacement. Thereafter, they should be checked every 50 hours of operation. See Torque valves in chart below. For all other torques, see **“Torque Values Chart”** on page 44 and engine manual for engine torque values.

Torque Values		
	FT - lbs.	**Nm**
Wheel Lug Nuts	75	102
Spindle Housing Flange Bolts	55	74
Electric Clutch Bolt	50 to 55	68 - 74

Tires

Use only tires recommended by Land Pride. Solid fill tires are not to be used on the Razor mower.

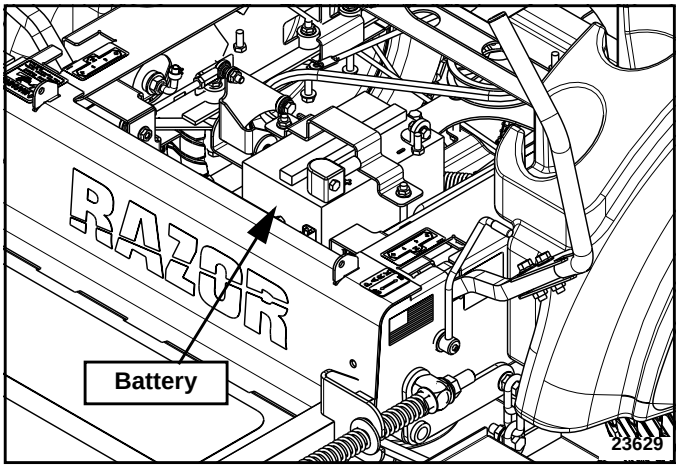
It is important for your safety and the safety of others that the tires have correct air pressure. Check air pressure in all four tires before each use. Visually inspect tires for loss of air throughout each day of operation. See Tire Inflation Chart below for correct tire pressure.

Tire Inflation Chart	
Tire	**Inflation PSI**
Drive Wheels	8-12
Gauge Wheels	8-12

Electrical System

Refer to Figure 4-2:

The battery is located under the seat. The electrical system is a 12 volt, negative ground. Recommended battery size is a garden mower BCI group U1R with 225 or better cranking AMP rating. A maintenance-free battery is recommended. Otherwise, follow battery manufacturer's maintenance, safety, storing and charging specifications.



Battery
Figure 4-2

WARNING

Acid can cause serious injury to skin and eyes. Avoid skin contact with battery acid and always wear eye protection when checking the battery. Flush area with clean water and call a physician immediately. Acid will also damage clothing.

WARNING

Do not allow an open flame near the battery when charging. Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to a flame.

WARNING

Incorrect battery cable connections can damage mower's electrical system and cause battery cables to spark. Sparks around a battery can result in a battery gas explosion and personal injury.

- *Always **disconnect** negative (black) battery cable before disconnecting positive (red) cable.*
- *Always **reconnect** positive (red) battery cable to the positive **(+)** post before reconnecting negative (black) cable to the negative **(-)** post.*

WARNING

Keep battery terminals from touching any metal mower parts when removing or installing the battery. Do not allow metal tools to short between the battery terminals and metal mower parts. Shorts caused by battery terminals or metal tools touching metal mower components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury.

WARNING

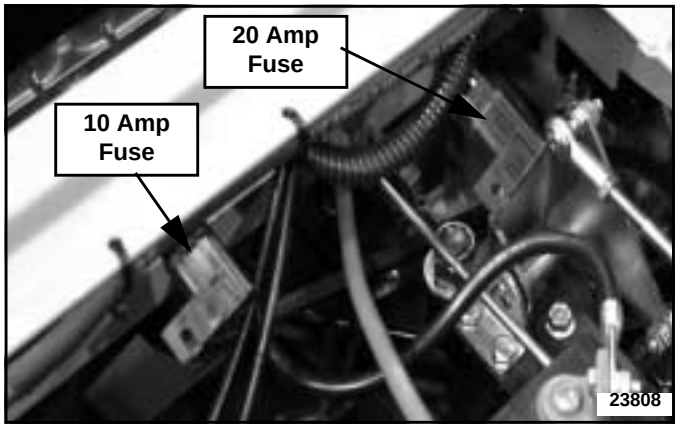
Do not overfill battery. Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Use soda mixed in water to clean corrosion off the terminals.

Common circuit problems are usually caused by electrical shorts, corroded or dirty terminals, loose connections, defective wire insulation or broken wires. Switches, solenoids and ignition components may also fail, causing a shorted or open circuit.

Refer to Figure 4-3:

The electrical system is protected by fuses located along the wire harness beneath the seat next to the engine. The fuses are:

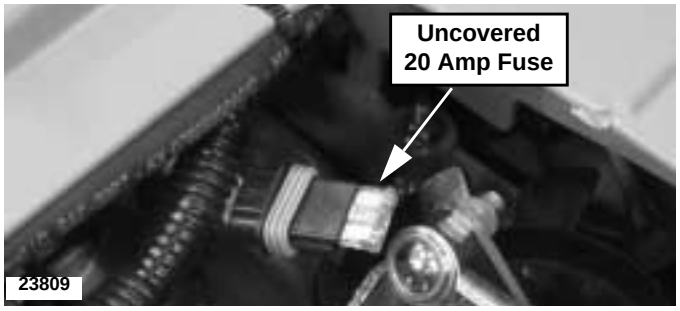
- Main - 20 Amp, blade type
- Clutch - 10 Amp, blade type



Wiring Harness Fusses
Figure 4-3

Refer to Figure 4-4:

Remove the cover over the fuse to access the fuse.



20amp Fuse W/Cover Removed
Figure 4-4

Before attempting any diagnosis of electrical system, use a test light or voltmeter to check battery voltage. If battery voltage is satisfactory, check cleanliness and tightness of terminals and ground connections. A general understanding of electrical servicing and use of basic test equipment is necessary for troubleshooting and repair.

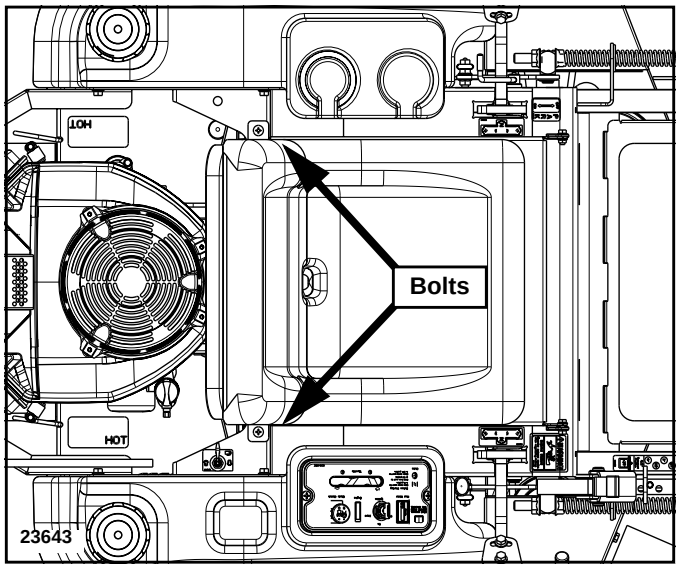
Major overhaul or repair of starting motor or alternator should be performed by trained technicians only.

Access to IZT Units (Integrated Zero-Turn Transaxle)

Refer to Refer to Figure 4-5

The IZT units are accessed by lifting the seat platform which is hinged at the front. To raise it, remove two bolts and tilt the seat platform up and forward.

NOTE: If the seat is equipped with the optional arm rest kit, make certain to place the control arms in the park position, set park lever to **(ON)** and pivot the arm rests upward before tilting the seat platform.



Access to IZT Units
Figure 4-5

WARNING

Always wear adequate eye protection when servicing the hydraulic system and battery.

Hydraulic System

The Razor is equipped with Hydro-Gear IZT (Integrated Zero-Turn Transaxle) units. These units are self contained, except for changing oil and filters. Repair of an IZT unit should be performed by trained technicians only.

NOTE: The IZT units are equipped with bypass valves. For more information refer to “Moving Mower with Stalled Engine” on page 15.

IMPORTANT: Do not use a high pressure washer on or around the IZT units. Water intrusion will result and void the IZT warranty.

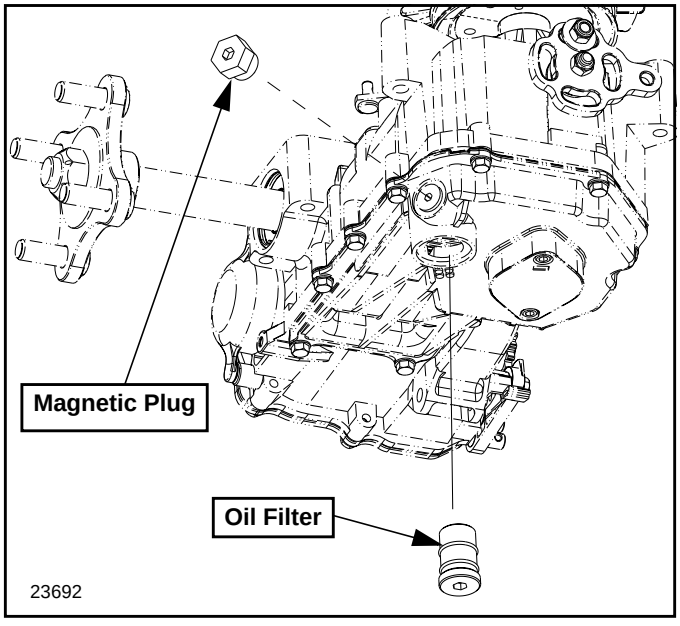
Hydraulic oil and Filter

Refer to Figure 4-6:

Initially change hydraulic oil and oil filter after the first 50 hours of operation. Thereafter, change the hydraulic oil and oil filter every 200 hours or every 2 years whichever comes first. Filter replacement kit #356-552A may be purchased from your nearest Land Pride dealer. The Kit contains two filters and two magnetic plugs.

Change hydraulic oil and oil filter as follows:

1. Raise mower so that filter and 9/16” magnetic plug can be accessed and worked on in a safe manner.
2. Place oil pan beneath pump.



Access to Oil Filter and Magnetic Plug
Figure 4-6

3. Clean the exterior of the unit of any debris before removing the oil filter and magnetic plug.
4. Remove oil filter from underside of pump with 3/8" allen wrench and allow oil to drain completely.

IMPORTANT: The filter is plastic, excessive torque will damage filter.

5. Torque bypass filter to 20-50 in-lbs. (2-6 Nm)
6. Wipe off excess oil from case.
7. Optional: Replace 9/16" magnetic plug with newly supplied 9/16" magnetic plug.
8. Lower mower safely to the ground.
9. Remove breather assembly located on top of pump and add 20W-50 Mobil oil.
10. Check oil level. Oil level should be 1 7/8" from top of case port.
11. Reinstall breather assembly into case port
12. Wipe off excess oil. A degreaser may need to be used to remove excess oil.

Fuel System

DANGER

- *Replacement of fuel system parts (i.e. gas caps, hoses, fuel tanks, fuel filters, etc.) must be the same as original parts. Fire and/or explosion can occur if not followed.*
- *Observe safe fuel handling precautions.*
- *Do not smoke while handling fuel.*
- *Do not fill tank with engine running or while engine is hot. Allow the engine to cool before filling. Spilling fuel over the engine, muffler, or a hot object may result in a fire or explosion.*
- *Allow engine to cool before servicing the fuel system.*
- *Do not fill fuel tanks to the top if mowing on hilly terrain or in hot weather. Gas can rise up to the fuel cap vent hole and seep out.*
- *Clean up any gasoline spills immediately.*
- *Keep fuel away from open flame or spark.*
- *Store the mower away from open flame or spark if there is fuel in the tank.*
- *Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive. A fire or explosion from gasoline can burn you and others and can damage property.*
- *Refuel outdoors preferably, or in well ventilated areas.*
- *Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.*
- *Store gasoline in an approved container and keep it out of children's reach.*
- *Never buy more than a 30 day supply of gasoline.*
- *Do not fill gasoline containers inside a vehicle, on a truck, or on a trailer. Interior carpets and plastic truck bed liners insulate the container and slow loss of static charge.*
- *When practical, remove equipment from the truck or trailer and refuel the equipment with its wheels on the ground. If this is not possible, then refuel the equipment on the truck or trailer using a portable container and not a gasoline dispenser nozzle. If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.*
- *Gasoline is a poison harmful or fatal if swallowed.*
- *Long-term exposure to vapors can cause serious injury and illness.*
- *Avoid prolonged breathing of vapors.*
- *Keep face away from nozzle and gas tank opening.*
- *Keep gas away from eyes and skin.*

The fuel tanks are located in the mower's fenders. Total capacity for the fuel tanks is 12 U.S. gallon.

When filling the fuel tanks, disengage blade engagement switch, place control levers in park position, set park to **(ON)** and stop engine. Allow engine to cool before filling the tanks.

Clean dirt from around fuel tank cap, remove cap and begin filling. Do not fill fuel tanks to the top if mowing on hilly terrain or in hot weather. Gas can rise up to the fuel cap vent hole and seep out. When finished, screw cap back on securely and wipe up any spilled gasoline. Use regular unleaded gasoline with an octane rating of 87 or higher.

IMPORTANT: Never use methanol, gasoline containing more than 10% ethanol because the fuel system could be damaged. Do not mix oil with gasoline.

Using a fuel stabilizer/conditioner in the fuel can provide benefits such as:

1. Keeps gasoline fresh during storage of 90 days or less. For longer storage, drain the fuel tanks.
2. Cleans the engine during operation.
3. Eliminates gum-like varnish build-up in the fuel system.

IMPORTANT: Do not use fuel additives containing methanol or ethanol.

Add the correct amount of gas stabilizer/conditioner to the gas. Follow the gas stabilizer/conditioner manufacturer's directions for best results.

Fuel Filter

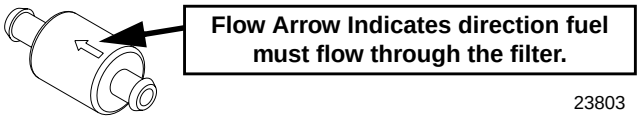
Refer to Figure 4-7:

DANGER

Close fuel shut-off valve before replacing fuel filter. Otherwise, fuel can leak out creating a fire and/or explosion hazard.

The fuel filter is installed in the fuel line between the Left/Right Fuel Tank Valve and engine fuel pump. Location of fuel filter will vary depending on which engine your mower is equipped with. See engine owner's manuals for exact location of fuel filter and instructions on removal and installation.

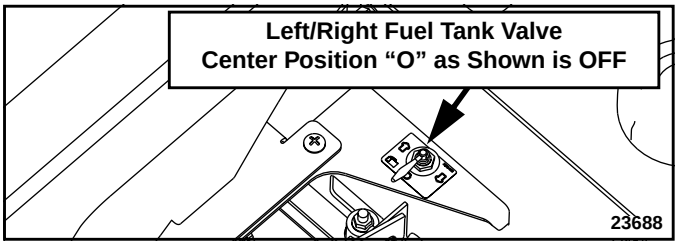
Replace filter annually or after every 100 hours of operation, whichever occurs first. Be sure to Install the fuel filter with Flow Arrow pointing towards the engine side of the fuel line. Always check fuel line hoses for any cracks or leaks. Replace as needed.



Fuel Filter
Figure 4-7

Draining The Fuel Tank

1. Park the unit on a flat surface. Make sure blade engagement switch is **in the down (OFF) position.** Place control levers in park and set park lever to **(ON)**. Stop engine and remove ignition key.
2. Disconnect negative battery cable.
3. Trace the fuel line from the tank to the tee under the Left/Right Fuel Tank Valve (Refer to Figure 4-8. Loosen the fuel line hose clamp at the tee and remove the fuel line from the tee.
4. Place the end of the fuel line into a gas can or a drain pan to drain the fuel tank.
5. When the fuel tank is drained, re-route the fuel line to the Left/Right Fuel Tank Valve and reattach with previously removed clamp.



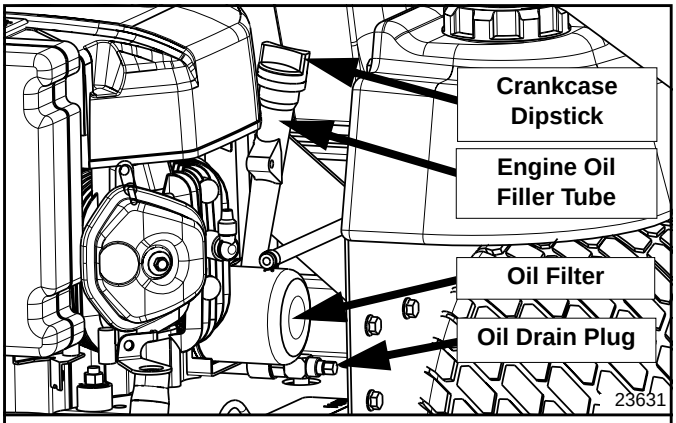
Fuel Shut-Off Valve (Honda Engine Location Shown)
Figure 4-8

Engine Oil and Oil Filter

Refer to Figure 4-9:

Check engine oil daily and after every 4 hours of operation. Crankcase dipstick and engine oil fill tube are located at the rear of the machine. Mower must be sitting level when checking oil. Refer to engine manual and maintenance schedule for oil recommendation and capacities.

Change the engine oil and filter after the first 5 hours of operation and per the engine manufacturer's recommendations after that. It is recommended oil be changed more frequently if the mower is being operated in extremely dirty conditions.



Oil Filter, Drain & Filler Tube (Honda Engine Shown)
Figure 4-9

The oil fill and dipstick are located on the right hand side for the Honda engine and left hand side for the Briggs & Stratton engine.The oil drain and oil filter are located on the right hand side for both engines.

Drain oil by unscrewing the oil drain plug (see Figure 4-9) as needed to allow oil to flow freely. Do not remove drain plug. Drain plug will offer resistance once it is unscrewed as far as it should be.

IMPORTANT: Make certain engine is level and you are inserting the dipstick correctly when checking oil. An oil overfill can cause engine problems.

Oil Check, Honda Engine

1. Unscrew oil filler cap/dipstick and wipe it clean.
2. Insert dipstick fully in **without screwing it in** and removing it again to check oil level.
3. If oil level is near or below the lower limit mark on the dipstick, fill with recommended oil to the upper limit mark. **Do not overfill**.
4. Reinstall oil filler cap/dipstick by screwing it in firmly.

Oil Check, Briggs & Stratton Engine

1. Unscrew oil filler cap/dipstick and wipe it clean.
2. Insert dipstick fully in **by screwing it in** and removing it again to check oil level.
3. If oil level is near or below the lower limit mark on the dipstick, fill with recommended oil to the upper limit mark. **Do not overfill**.
4. Reinstall oil filler cap/dipstick by screwing it in firmly.

Engine Air Filter

Perform engine air filter maintenance per the engine operator's manual.

General Engine Maintenance

Detailed instructions and recommendations for break-in and regular maintenance are specified in the engine operator's manual. Please refer to this manual for engine servicing, lubricating oil levels with quality and viscosity recommendations, bolt torques, etc. The engine warranty is backed by the engine manufacturer. Special attention should be paid to applicable data which is not duplicated here.

Belt Replacement

Refer to Figure 4-10 and Figure 4-11:

Replace belts that show signs of severe cuts, tears, excessive weather checking, cracking and/or burns. Slight raveling of belt covering does not indicate belt damage. Trim ravelings with a sharp knife.

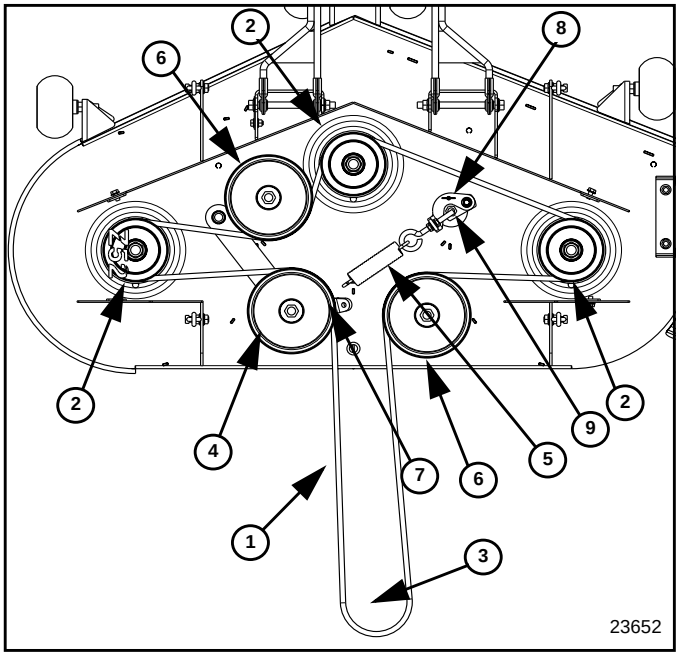
Inspect belt pulley grooves and flanges for wear. A new belt, or one in good condition, should never run against the bottom of the groove. Replace pulley when this is the case, otherwise belt will lose power and slip excessively.

Never pry a belt onto a pulley as this will cut or damage the fibers of the belt covering. Keep oil and grease away from belts, and never use belt dressings. Any of these will destroy the belt composition in a very short time.

Deck Belt Replacement Instructions

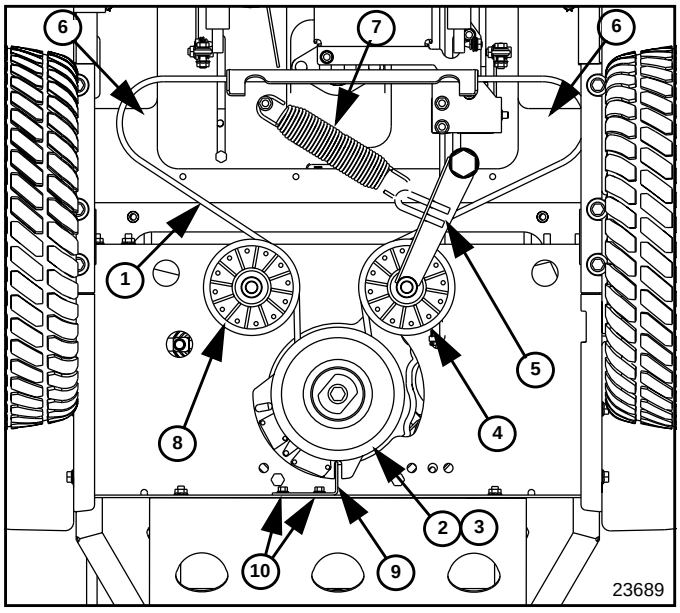
Refer to Figure 4-10:

1. Park mower on a flat surface. Stop engine and remove ignition key. Make sure blade engagement switch is **in the down (OFF) position**. Spread control levers fully apart and set park to **(ON)**. Disconnect negative battery cable.
2. Place deck height in the lowest position.
3. Remove the deck belt covers and floor panel.
4. Release the deck belt tension by putting a 3/4" socket wrench on the over-center-release bolt (#9) and turning counterclockwise. This will relieve the tension on the deck belt idler spring.
5. Pull tension idler (#4) to the left of the machine to provide maximum belt clearance.
6. Remove existing deck belt (#1).
7. Route new deck belt (#1) as shown in Figure 4-10.
8. Re-tension deck belt idler (#3) by turning the over-center-release bolt (#9) clockwise. Check belt tension per the **"Deck Drive Belt Adjustment**" on page 22.
9. Re-install deck belt covers.
10. Re-attach the negative battery cable and floor panel.



Deck Belt Drive Layout
Figure 4-10

1. Deck drive belt
2. Deck blade spindle pulley
3. Electric clutch pulley
4. Spindle belt tension idler
5. Tension idler spring
6. Deck belt idler
7. Idler arm
8. Over-center tensioner
9. Over-center release (Use 3/4" socket wrench)



Drive Belt Viewed from the Bottom
(Drive motors removed for clarity)
Figure 4-11

1. Pump belt
2. Engine pulley
3. Electric clutch pulley
4. Pump tension idler pulley
5. Pump idler arm
6. Pump pulley
7. Pump idler spring
8. Fixed idler pulley
9. Clutch restraint bracket
10. 1/4"-20 x 5/8" GR5 Hex flange screws and hex flange nuts

Drive Belt Replacement Instructions

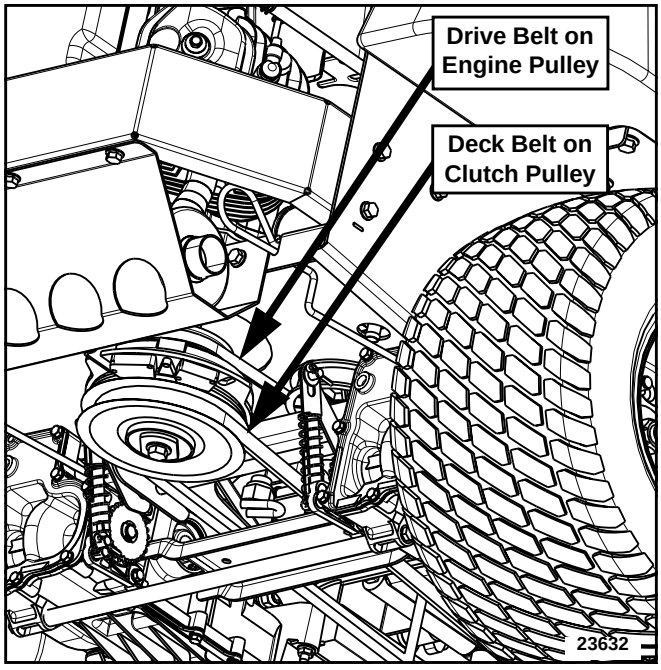
Refer to Figure 4-11 on page 33:

1. Park unit on a flat surface. Stop engine and remove ignition key. Make sure blade engagement switch is **in the down (OFF) position.** Spread control levers fully apart and set park to **(ON)**.

WARNING

Make sure engine and engine muffler is completely cooled before working on and around the drive belt. Server burns to the body could result if engine and muffler have not cooled.

2. Disconnect negative battery cable.
3. Place deck height in the lowest position.
4. Remove deck drive belt (#1 in Figure 4-10) from the electric clutch pulley (#3) as outlined in **"Deck Belt Replacement Instructions**" on Page 33. This belt does not need to be removed from any of the other deck pulleys.
5. Release belt tension from the IZT units (#6) by pulling on the idler pulley (#4) (extending spring (#7) carefully) and sliding the belt over the pulley. **Use caution when releasing the idler pulley as there is still tension on it and it will snap back into position.**
6. Remove clutch restraint bracket (#9) by removing the two 1/4"-20 GR5 hex flange head screws and hex flange nuts (#10)
7. Slide the belt off and above the engine pulley (#2). The belt will have to be slid above the engine pulley to allow the belt to be removed from the other pulleys. Refer to Figure 4-12.



Pump/Motor Belt Removal
Figure 4-12

8. Slide the belt over the IZT pulleys (#6).
9. Slide the belt off of the fixed idler pulley (#8).
10. The belt can now be removed from above the engine pulley (#2).
11. Install new belt by sliding it up and over the engine pulley (#2). Make certain it is not in the pulley groove at this time but is above the pulley.
12. Slide the belt over the fixed idler pulley (#8) and then over the IZT pulleys (#6).
13. Slide the belt onto the engine pulley (#2).
14. Pull the idler pulley (#4) over and slide the belt onto it. **Make certain to keep fingers from getting between the belt and the pulley when the pulley is released and tension is re-established.**
15. Re-install the deck drive belt on the electric clutch pulley and make sure it is routed properly on all of the deck pulleys.
16. Reattach clutch restraint bracket (#9) with two 1/4"-20 GR5 hex flange head screws and hex flange nuts (#10). Tighten nuts to correct torque.
17. Re-tension the deck belt idler per the "Deck Belt Replacement Instructions" on page 33.
18. Re-attach the negative battery cable.

Mower Blade Maintenance

Blade Inspection

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear rather than cut the grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power from the engine.

Replace any blade which is bent, cracked or broken.

WARNING

DO NOT try to straighten a blade that is bent. Never weld a broken or cracked blade. ALWAYS replace with a new Land Pride blade to assure safety.

DANGER

*Never work with blades while engine is running or blade is engaged. Always place blade engagement switch in the down (Off) position, place both control levers in neutral position, place park lever in **(ON)** position and turn engine off. Block up mower when you must work under it. Wear gloves when handling blades. Always check for blade damage if mower strikes rock, branch or other foreign object during mowing!*

IMPORTANT: Blade mounting bolts have right hand threads. Turn blade bolts counterclockwise to loosen and clockwise to tighten.

1. Remove blades by grasping the blade end with a rag or thick padded glove while loosening the blade mounting bolt.
2. With a 11/16" wrench, remove the 1/2" center blade bolt and Washer from the bottom of the blade.

IMPORTANT: Replace blades with Land Pride blades only.

IMPORTANT: Always install blades with cutting edge facing direction of blade spindle rotation and with wing tips pointing up towards bottom of deck.

3. Reinstall blade, blade washer and bolt. Care should be taken when installing the blade bolt to not get it cross threaded.
4. Tighten blade bolt to 135 ft-lbs. of torque.

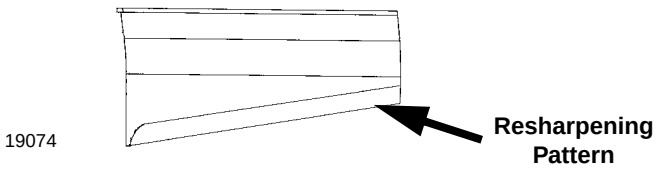
Blade Sharpening

CAUTION

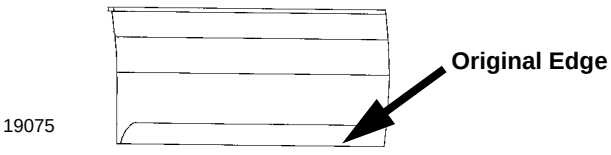
ALWAYS wear eye protection and gloves when sharpening a blade.

NOTE: Care should be taken in order not to remove any more material than necessary to sharpen blade.

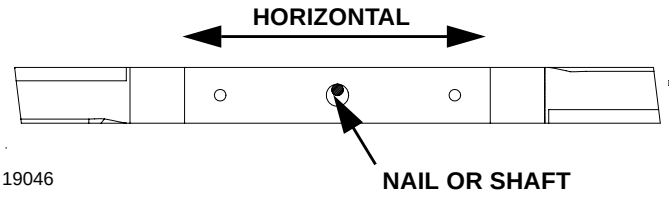
1. If the blade cutting edge is dull or nicked, it should be replaced or sharpened.
2. Clean blade, blade washer and mounting surface of all debris before replacing or sharpening.
3. Sharpen blades on a grinder following pattern as shown in Figure 4-13. Grind cutting edge at the same bevel (27 1/2 degrees) as the original. Sharpen only the top of the cutting edge to maintain sharpness. Touch-up sharpening can be done with a file.



Do not sharpen to original pattern (below).
It is easier to get a straight cutting edge following the resharpening pattern shown above.



Blade Resharpening
Figure 4-13



Blade Balancing
Figure 4-14

4. Balance of a blade is generally maintained by removing an equal amount of material from each end of the blade when sharpening. Check blade balance by positioning the blade horizontally on a nail or shaft through the center hole. See Figure 4-14. If either end of the blade rotates downward, grind (remove) metal on that end until the blade will balance. The blade is properly balanced when neither end drops. If blade is out of balance, true it up before reinstalling.

Refer to Figure 4-15 and Figure 4-16:

Lay the blade on a flat surface and check for distortion. Replace any distorted blade.

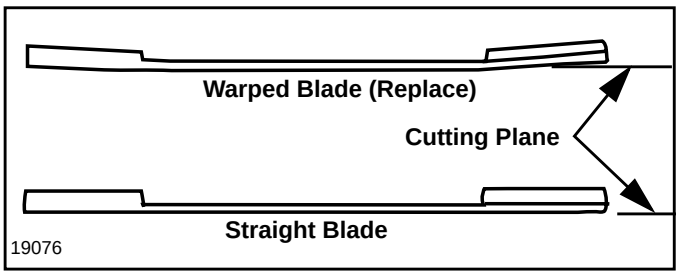
Do not re-use spindle bolts which have stripped, worn or undercut threads. Refer to **"Torque Values Chart"** on page 44 when replacing hardware for proper torque.

WARNING

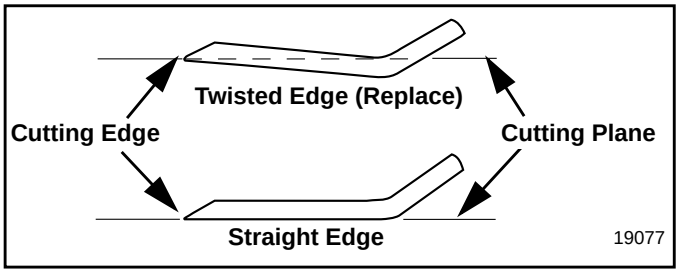
When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of the mower.

WARNING

Failure to correctly torque the bolt may result in the loss of the blade which can cause serious injury.



Comparison of Warped and Straight Blades
Figure 4-15



End View of Blades, Twisted & Straight Blades
Figure 4-16

Storage

Take the following steps when storing the mower at the end of the season and when the unit will not be used for long periods to ensure readiness for the next mowing season.

IMPORTANT: Do not use a high pressure washer on or around the IZT units. Water intrusion will result and void the IZT warranty.

1. Remove all grass, dirt, trash and grease that may have accumulated on the mower and moving parts.
2. Scrape off compacted dirt, trash and grass clippings from the deck underside. A coating of oil may also be applied to the deck underside to minimize oxidation.
3. Clean and touch up all scrapes with Land Pride spray paint.
4. Check blades and blade bolts for wear and replace if necessary.
5. Service air cleaner according to engine manufacture's recommendations.
6. Check thoroughly for any worn or damaged parts that need replacing and order them from your nearest Land Pride Dealer.
7. Thoroughly lubricate machine, according to lubrication instructions.
8. Block mower up so weight is off tires.

NOTE: Do not deflate tires.

9. Protect battery from freezing temperatures. Disconnect the negative ground wire from the battery to reduce the chances of a slow electrical drain. Occasionally recharging battery during storage will extend battery life.
10. Prepare engine for storage as described below.
11. Store mower in a clean, dry place.

Preparation of Engine for Storage

When engine is to be unused for long periods, proceed as follows:

1. Run engine for a minimum of 15 minutes.
2. Drain oil from crankcase while engine is still warm.
3. Refill with fresh oil of proper viscosity.
4. Drain fuel tank and run engine until it stops from lack of fuel. Gasoline evaporates if left in carburetor for long periods, forming gum and varnish deposits in carburetor. These deposits will cause engine flooding and loss of power.
5. Remove and replace fuel filter if not done in previous 100 hours.
6. Remove spark plugs and pour a tablespoon of engine oil into each spark plug hole. Install plugs, but do not reconnect plug leads.
7. Crank engine with starter at least a dozen revolutions to distribute oil over cylinder walls and valve mechanism.
8. Clean exterior surface of engine. Spread a light film of oil over any exposed metal surfaces of engine that are subject to corrosion.
9. Clean dirt and chaff from cylinders and fins, blower housing and muffler.
10. Check oil filler cap and fuel tank cap to make certain they are securely in place.

New Season Preparation

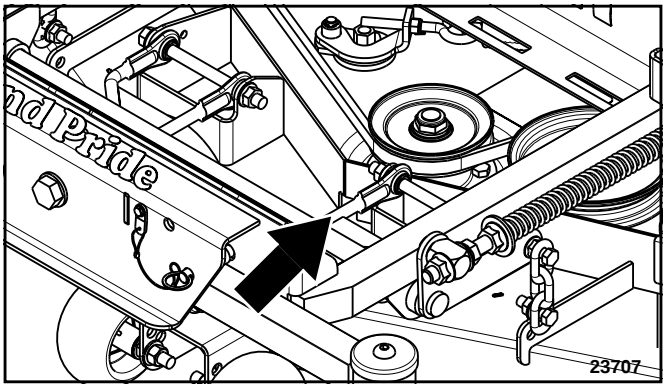
Before starting the mower following post season storage, the following servicing is required:

IMPORTANT: Do not use a high pressure washer on or around the IZT units. Water intrusion will result and void the IZT warranty.

1. Clean mower, removing trash and dirt accumulation.
2. Check engine oil level.
3. Tighten any bolts that have loosened and make sure all hair pins, cotter pins and clevis pins are in place.
4. Install all safety shields and review safety precautions listed in this manual.
5. Check and inflate tires to 8-12 psi.
6. Fill fuel tank with fresh gasoline.
7. Reconnect spark plug leads to spark plug.
8. Run machine at half speed for 5 minutes, checking operation of the control levers. Stop engine and check for oil leaks, loose fittings and so forth.

Lubrication Points

Lubrication Legend	Multi-purpose spray lube	Multi-purpose grease lube	Multi-purpose oil lube	50 Intervals in hours at which lubrication is required



25 Hours

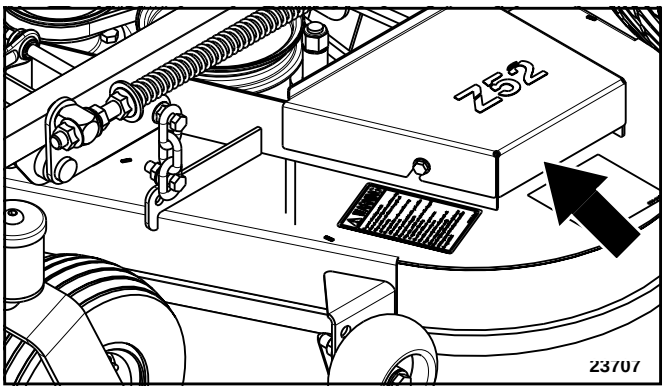
Center Blade Spindle

Through opening between front shields.

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



25 Hours

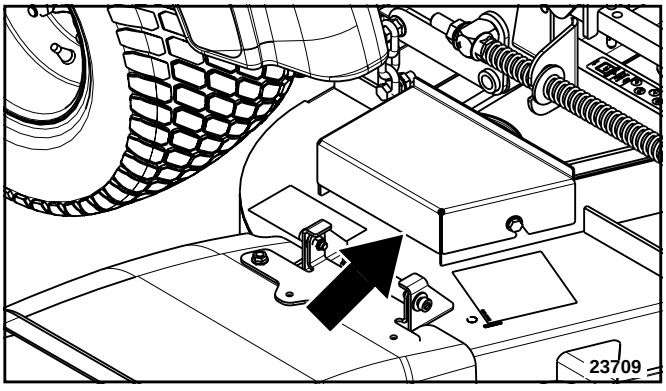
Left Blade Spindle

Under lower edge of pulley cover.

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



25 Hours

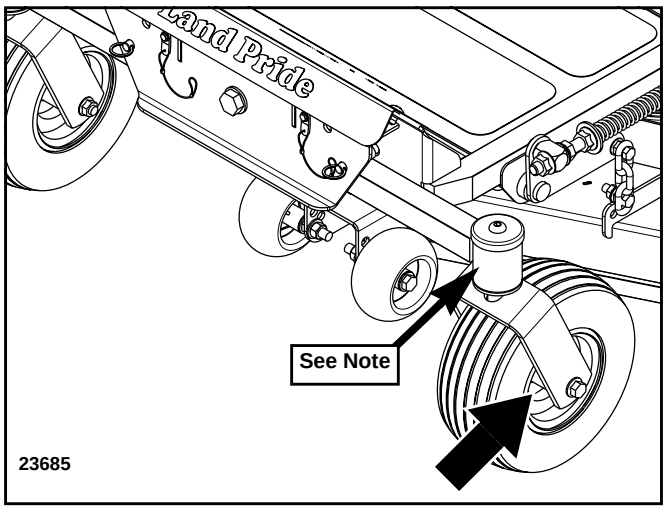
Right Blade Spindle

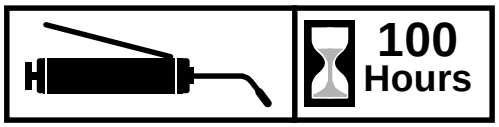
Under lower edge of pulley cover.

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required





Gauge Wheel Bearing Zerk

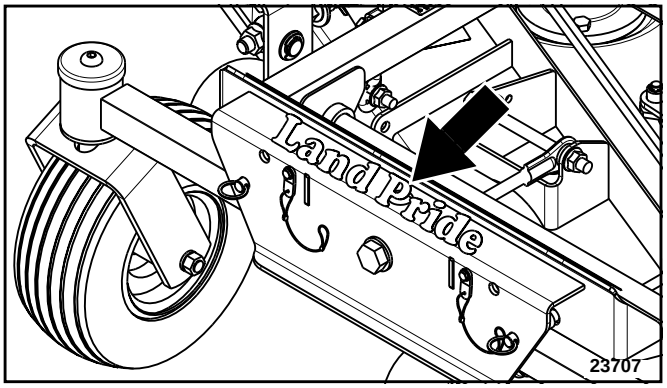
Located on hub of gauge wheel

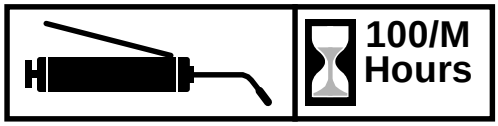
2 Zerks (One on each gauge wheel)

Type of Lubrication: Multi-purpose Grease

Quantity = As required

NOTE: Caster spindles have sealed bearings and require no servicing.





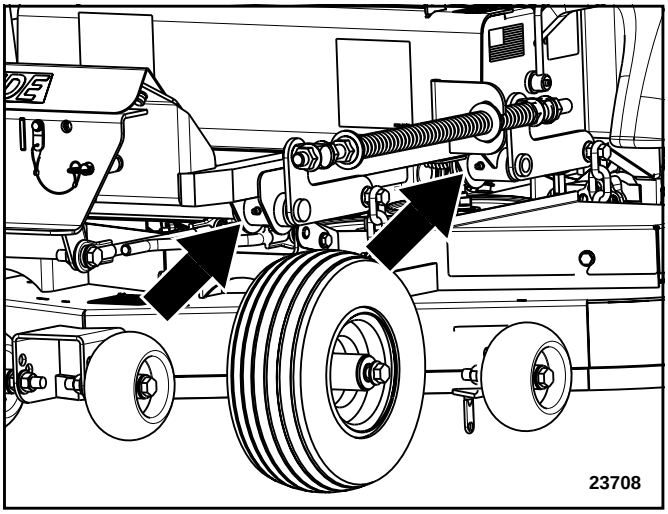
Front Axle Center Pivot

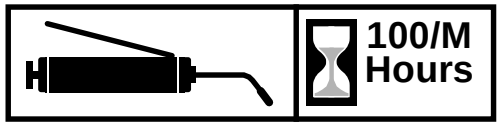
Remove floor panel above deck to access

1 Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required





Deck Lift Pivot Points

4 Zerks (2 left side and 2 right side)

Type of Lubrication: Multi-purpose Grease

Quantity = As required

Z44 & Z52 Accu-Z Razor® (Engine Specifications)

Engine Type	Briggs & Stratton		Honda		
Mower Model No.	Z44	Z52	Z44	Z52	
Horsepower	20	25	18	18	20
No of Cylinders	2	2	2	2	2
Displacement	34.9 cu. in. (725 cc)	34.9 cu. in. (725 cc)	32.5 cu. in. (675cc)	32.5 cu. in. (675cc)	32.5 cu. in. (670cc)
Compression Ratio	N/A	N/A	8.3:1	8.3:1	8.3:1
Max Torque	N/A	N/A	32.5 FT. LBS @ 2500 RPM	32.5 FT. LBS @ 2500 RPM	32.5 FT. LBS @ 2500 RPM
Oil Capacity w/ Filter	2 US quarts	2 US quarts	2.3 US quarts	2.3 US quarts	2.3 US quarts
Oil Filter	831-053C		831-038C		
Air Filter, Paper	831-054C		831-036C		
Air Filter, Pre Cleaner	None		831-037C		
Fuel Filter	Replaceable, Automotive-Type Land Pride Part No. 831-035C				
Cooling	Air cooled, Fly-wheel fan				

Z44 & Z52 Accu-Z Razor® (General Specifications)

	Z44	Z52
Width of Cut	44"	51"
Trim Capacity (left side)	0.1"	5"
Overall width	49.7”	56.9”
Tire-to-tire width:	43.8”	44.5”
Height	39”	
Overall Length without hitch plate	67.9” w/Honda Engine 68.7" w/Briggs & Stratton Engine	
Weight	720 lbs. w/Honda Engine 709 lbs. w/Briggs & Stratton Engine	735 lbs. w/Honda Engine 724 lbs. w/Briggs & Stratton Engine
Drive Tires	18 x 8.5 - 8, turf tread	18 x 9.5 - 8, turf tread
Front Tires	11 x 4.00 - 5, rib tire	
Starter	12-volt (.8 KW), solenoid shift positive engagement. w/Honda Engine 12-volt (.8 KW), industrial Starter w/Briggs & Stratton Engine	
Ignition	Electronic	
Charging System	12-volt, 20 amp w/Honda Engine 12-volt, 16 amp w/Briggs & Stratton Engine	
Governor	Mechanical	
Fuel	Unleaded gasoline with octane rating of 87 or higher	
Fuel Capacities	12 US GAL	
Traction Drive Type	Dual Hydrostatic Transmission	
Hydraulic Drive Oil	20W-50 Mobil oil	
Hydraulic Oil Capacity	2.4 qts. or 77 oz.	
Hydraulic Motor/Pumps	Two variable displacement, axial piston type.	
Hydraulic Motor/Pump Drive	V-belt drive from engine crankshaft	

Specifications to continue on next page.

Z44 & Z52 Accu-Z Razor® (General Specifications)

	Z44	Z52
Ground Speed	Forward: 0-7 MPH Reverse: 0-5 MPH	
Steering Type	Twin lever steering provides independent control of each drive wheel.	
Twin Lever Steering Controls	Speed, forward, reverse, brake, and turns.	
Steering Turning Radius	True zero degree. Turns with counter-rotating independent drive wheels	
Brake Service	Hydrostatic dynamic braking	
Parking	Lever applied pawl and cog wheel	
Mower Drive	Single V-belt with electric clutch and spring tension idler pulley	
Safety Features	Operator presence system connected to deck and drive clutches.	
Seat	Molded-vinyl seat. Bolt loosening required for forward and reverse adjustments. Optional armrests kit for standard molded-vinyl seat. Optional deluxe cushion seat with arm rests.	
Mainframe Construction	1 1/2" square solid steel.	
Drive Motor Mount	1/8” welded steel	
Front Caster Wheels	Mounted with roller bearings on each wheel.	
Front Caster Forks	3/8” steel.	
Deck Thickness	11 Gauge decks with reinforcements welded into spindle mount areas	
Box-Section Reinforced Front Edge	11 GA. x 3 1/2" x 1 1/2” Box	
Deck Trim Edges	Solid 1” x 3/8” steel bars for reinforced impact area	
Deck Housing Depth	4 1/8” deep, (room for high-capacity mowing)	
Deck Lift	Foot-operated deck height adjustment. Pin for setting height and transport position.	
Hand Operated Controls	Ignition switch, throttle lever, control levers, blade engagement switch, choke lever and Left/Right Fuel Tank Valve.	
Indicators	Engine warning light and hour meter	
Cup Holder	Two cup holders molded into the left side fuel tank. Accommodates nearly any cup size including Big Gulp.	
Cutting Heights	Foot-operated deck height adjustment. Pin for setting height, transport position. Height adjustment in 1/4" increments from 1 1/2” to 4 1/2”	
Mowing Blades	Heavy-duty, heat-treated, high-lift steel blades	
	.20" x 2 1/2" x 15.81"	.20 x 2 1/2” x 17.81”
Blade Tip Speed	16,811 FPM	18,937 FPM
Blade Drive	V-belt drive to all three spindles. Spring tension idler pulleys.	
Spindles	Machine ductile housing, 1" diameter high carbon steel shafts and greasable ball bearings.	
Flotation	Free-floating mower using three blades with center blade to the front. Mower is suspended at the four corners on spring-assisted chains. Includes 4 anti-scalp wheels to improve flotation in rolling and uneven terrain.	

Z44 & Z52 Accu-Z Razor®

Features	Benefits
44” or 52” Cutting width	Sized and priced right for residential owners.
Ground speed	Forward 0-7 mph and Reverse 0-5 mph for high mowing productivity
Mid-mount deck design	Mid-mount design puts the deck closer to the operator’s line of sight for a more efficient and precise operation.
Compact size	Enhances mowing maneuverability, as well as fitting on trailers or storing more efficiently.
Drive tire stance	Narrow width (44: 44”, 52: 45”) allows for tight turns in corners, yet gives a very stable platform for the operator.
Steering levers designed for more adjustment and comfort	Steering levers are designed with more adjustments to fit more comfortably to operators of all sizes. Also new comfort grip handles are standard equipment.
Stamped reinforcing ring added to deck construction	Makes a stronger deck and reduces unwanted flex.
Deck Construction	Single welded frame design. 11 Gauge with 1” x 3/8” reinforcements.
Floating deck design	Deck has chain suspension which offers excellent flotation over uneven terrain.
Deck height adjustment	Height is changed by a spring-loaded foot operated lever and pin. Easier than hand levers to push and faster than waiting on an electric actuation.
Anti-scalp rollers - 4	Front middle and front corners to keep scalping to a minimum.
Cutting height	1 1/2” to 4 1/2” Range in 1/4” increments to cut any type of turf grass.
Tires	Wide tires offer excellent ground flotation. Heavy wheel forks take abuse.
High blade tip speed	44" = 16,811 fpm and 52" = 18,937 fpm (Assures a good finish cut.)
High lift blades	Heavy-duty high lift blades are .20” thick to handle the wear, with a high lift design to stand the grass up before cutting. Made from highest quality ™Marbain steel for longer blade life.
1” Blade spindles	1” Blades spindles with ball bearings handle heavy shock loads.
Single belt drive	Single belt design offers easier maintenance over multiple belt designs, less expensive to maintain.
Electric clutch control	Easy and smooth engagement of the mower blade drive system.
Park Safety Lockout	Control levers can not be bumped into forward or reverse accidently without manually setting the park lever to (OFF).
Hydro-Gear IZT (Zero-Turn Transaxle) drive unit on each rear wheel	Each mower has a homeowner friendly integrated hydrostatic transaxle containing a pump and drive motor for each rear wheel. Except for changing hydraulic filters, these units are self contained and are maintenance free.
Choice of Honda or premium Briggs Intek Series Engines and 18, 20, or 25 HP	Makes it possible for you to buy more value, performance and power for your dollar.
The engine is centered and oriented for maximum ease of service.	Engine orientation provides for increased air flow around engine fins to help extend engine life. Also it provides for a shorter overall mower length with more leg room available. Spark plugs, air cleaner, choke and throttle can be serviced from the rear verses the side. The muffler is located to reduce potential burn hazard and to lower sound level at the operator’s station.
Electric start	Easily starts with the turn of a key.
Integrated fan blades	Pumps stay cool.
Sleek styling twin six-gallon molded fuel tanks with extra large inboard fuel caps.	Twin six-gallon tanks (12 gallons total) with selector valve for extending operating range and decreasing down time. Extra large fuel openings for easy fueling. Inboard positioning of fuel caps so they don’t come off during operation.
Molded-in dual cup holders and storage compartments	Cup holders fit a wide variety of cups and are in easy access to driver. Storage compartments offer additional operator convince.
Seat Options	Molded seat incorporates a high back to give adequate comfort for the long jobs or Deluxe Cushion seat for additional suspension over rough terrain.

Symptoms	Probable Causes	Suggested Remedies
Starting motor does not crank	Park lever is not in park position (ON) or park switch is out of adjustment	Place control handle in neutral and full out, pull up on park lever. Re-adjust park position switch
	Blade Engagement switch is engaged	Disengage blade switch
	Weak or dead battery	Recharge or replace
	For additional causes	See engine manual
Engine cranks but does not start	No fuel or line plugged	Fill tank or replace line
	Numerous	See engine manual
	Left Hand Tank has gas	Switch Left/Right tank valve. See Figure 4-8 on page 32.
Engine: Runs with continuous misfiring or engine runs unevenly or erratically	Numerous	See engine manual
Grass cutting is ragged or uneven	Dull, bent or broken cutting blades	Sharpen or replace cutting blades
	Deck full of wet sticky grass	Clean underside of deck
	Cutting Blades are not operating at full engine speed	Increase engine rpms to full speed (3600 rpm)
	Belt over center take-up is loose	Tension over center take-up
	Worn or broken belts	Replace worn and broken belts
	Deck is not level	Check air pressure in all 4 tires Make level adjustments to the deck
Loss of power or system will not operate in either direction	Bypass valve rods are disengaged	Engage bypass valve rods
	Linkage bolt is loose or lost	Replace linkage bolt
	Bad pump belt and/or idler pulley	Replace belt and/or idler pulley Tighten idler pulley if loose
	Loose, lost or broke idler pulley spring	Reattach or replace idler pulley spring
	Restrictions in air cleaner	Service air cleaner
	Internal interference or leakage in Hydro-Drive	See your dealer
	Insufficient hydraulic oil supply	Have dealer check hydro-drive
	Poor compression	See your dealer
	Steering linkage needs adjustment	Adjust linkage
	Air in system	Check filter & fittings
	For additional causes	See engine manual
Overheating	Air intake screen or cleaning fins clogged	Clean screen and fin
	Not operating engine at rated speed	Increase engine speed to 3600 rpm
	For additional causes	See engine manual
Low oil pressure (Indicated by oil light on while engine is running.)	Low oil level	Add oil
	Oil diluted or too light	Change oil and check for source of contamination

Symptoms	Probable Causes	Suggested Remedies
High oil consumption	Numerous	See your dealer
Mower jerky when starting or operates in one direction only	Steering control linkage needs adjustment	Adjust linkage
	Hydro-drive faulty	See your dealer
Hydraulic system operates hot	Hydro-drive faulty	See your dealer
	Not operating engine at rated speed	Increase engine speed to 3600 rpm
Mower creeps when steering control levers are in neutral	Steering linkage needs adjustment	Adjust linkage
Mower circles or veers in one direction	Steering linkage needs adjustment	Adjust linkage
	Hydro-drive faulty	See your dealer
Mower creeps with park lever engaged	Steering linkage needs adjustment	Adjust steering linkage and replace parking pawl

Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification Grade 2		Grade 5		Grade 8	
in-tpi [1]	N·m [2]	ft-lb [3]	N·m	ft-lb	N·m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12
1/4" - 28	8.5	6	13	10	18	14
5/16" - 18	15	11	24	17	33	25
5/16" - 24	17	13	26	19	37	27
3/8" - 16	27	20	42	31	59	44
3/8" - 24	31	22	47	35	67	49
7/16" - 14	43	32	67	49	95	70
7/16" - 20	49	36	75	55	105	78
1/2" - 13	66	49	105	76	145	105
1/2" - 20	75	55	115	85	165	120
9/16" - 12	95	70	150	110	210	155
9/16" - 18	105	79	165	120	235	170
5/8" - 11	130	97	205	150	285	210
5/8" - 18	150	110	230	170	325	240
3/4" - 10	235	170	360	265	510	375
3/4" - 16	260	190	405	295	570	420
7/8" - 9	225	165	585	430	820	605
7/8" - 14	250	185	640	475	905	670
1" - 8	340	250	875	645	1230	910
1" - 12	370	275	955	705	1350	995
1-1/8" - 7	480	355	1080	795	1750	1290
1 1/8" - 12	540	395	1210	890	1960	1440
1 1/4" - 7	680	500	1520	1120	2460	1820
1 1/4" - 12	750	555	1680	1240	2730	2010
1 3/8" - 6	890	655	1990	1470	3230	2380
1 3/8" - 12	1010	745	2270	1670	3680	2710
1 1/2" - 6	1180	870	2640	1950	4290	3160
1 1/2" - 12	1330	980	2970	2190	4820	3560

Bolt Size (Metric)	Bolt Head Identification 5.8 Class 5.8		8.8 Class 8.8		10.9 Class 10.9	
mm x pitch [4]	N·m	ft-lb	N·m	ft-lb	N·m	ft-lb
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	l215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

[1] in-tpi = nominal thread diameter in inches-threads per inch

[2] N· m = newton-meters

[3] ft-lb= foot pounds

[4] mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Additional Torque Values

Drive Wheel Lug Nuts (1/2"-20 UNF)	75 ft-lbs.
Blade Spindle bolts (1/2"-20 UNF x 2" GR8)	135 ft-lbs.
Pulley bolts before Installing pulleys (5/8"-11 UNC x 3 1/2" GR5)	130 ft-lbs.
Electric Clutch Bolt (7/16"- 20 UNF x 3" GR5)	50 ft-lbs.

Tire Inflation Chart

Tire	Inflation PSI
Drive Wheels	8 to 12
Gauge Wheels	8 to 12

Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule:

*__Residential use:__ 2 years from date of delivery on all materials & workmanship.

*__Residential purpose__ means use of product on same lot as your home.

Deck: All defects in the deck which results in the front edge of the deck being bent into the blades for the entire length of ownership by the original purchaser.

Engine: 2 year limited warranty on Parts and Labor, through engine manufacturer.

Battery: 1 year limited warranty

Belts, blades, and tires: are considered wear items.

This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and other routine maintenance items.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.

Corporate Office: P.O. Box 5060
Salina, Kansas 67402-5060 USA
www.landpride.com